

**Improving health education practice in
secondary school: A social ecological
examination of Personal and Social Education
policy implementation processes and practice in
Welsh secondary schools**

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Summary

The effectiveness of school-based health education in changing behaviour and health outcomes is limited. This in part can be attributed to the types of classroom exchanges taking place within health education lessons. There is an evident need to examine the potential link between pedagogy and health education.

This study comprises a social ecological examination of the implementation of the Welsh Government's Personal and Social Education (PSE) policy, which seeks to promote health behaviours alongside social and economic wellbeing. A socio-ecological (SE) perspective aims to understand the different influences on practice and take into account individual, social and organisational level influences on implementation. An exploratory case study is used to examine practice in four systematically selected secondary schools from two local authorities in Wales (FSM entitlement¹ >20% and <10%). Methods incorporate analysis of national and local policy documents, interviews with implementers at local authority (n=5) and school level (n=11), lesson observations (n=12 lessons) and pupil focus groups (n= 23 pupils).

The findings suggest that a lack of clarity about how PSE should be implemented in schools seems to lead to uncertainties among implementers. These uncertainties are exacerbated by a focus on graded performance that has shaped school staff beliefs and organisational arrangements. A performance focus also re-emerges in classroom practice that is mainly characterised by a transmission of facts although some competency-focused classroom exchanges are apparent. There is some limited evidence of pupils' understanding and generalising health knowledge and self-reported self-regulation of health behaviours.

¹ Free School Meal (FSM) entitlement rates of schools represent the proportion of pupils from low income families. FSM rates are used in this study as an indicator of socio-economic disadvantage due to the absence of appropriate alternatives. Although FSM is frequently used in school research its validity has been questioned (Hobbs and Vignoles 1997). Details are discussed.

For my little boy Richard

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Introduction

The low proportion of young people engaging in regular physical activity and eating a healthy diet represents an important public health challenge (Brooks et al. 2006). If such behaviours remain unchanged throughout the life course they can lead to chronic diseases, which limit people's quality of life in old age and pose a challenge for healthcare provision (DH 2004). According to a socio-ecological (SE) perspective, health behaviours are shaped by multiple influences located at the intra- and interpersonal level, the organisational- as well as wider community- and policy contexts (McLeroy et al. 1988). These influences are recognised in Health Promoting Schools (HPS) approaches, which incorporate health education into whole school interventions. One such approach is Personal and Social Education (PSE), a statutory element of the national curriculum in Wales that seeks to promote pupils' personal and social development, including health behaviours.

Whilst effective in enhancing young peoples' health knowledge, curriculum-based interventions have been found to have a limited impact on sustainable health behaviour changes (Harris et al. 2009). Lesson processes appear to be a key barrier: Evaluations of PSE carried out by HM Inspectorate¹ have found classroom practice to be unsuitable in about half of the lessons observed (Estyn 2007c). Similarly, a non-statutory subject in England similar to PSE has been found to be limited by lesson processes dominated by teacher-centred talk and a transmission of facts, marginalising pupil involvement (Formby and Wolstenholme 2012). These arguments correspond to findings from elsewhere (McCuaig et al. 2012), which have led to concerns that such fact-focused classroom talk does not support pupils' acquisition of skills and competencies relevant to health (Whitty 2002; Begoray et al. 2009; Formby and Wolstenholme 2012).

¹ Her Majesty's Inspectorate for Education and Training in Wales, Estyn, is independent of, but funded by, the Welsh Government. The purpose of Estyn is to inspect quality and standards in education and training in Wales.

It appears that the development of such health education interventions did not take account of the role of pedagogy in eliciting certain learning processes and skills, and ways in which these might shape intra-personal influences on young people's health behaviours. Intentions to engage in health behaviours represent one such important intrapersonal influence (Ajzen 1985). It has been found that the intention-behaviour link can be strengthened by encouraging people to self-regulate their behaviours (Bandura 2005). Self-regulation interventions with adults and school-aged children have been effective in eliciting sustainable behaviour change and have had a positive impact on health outcomes (Robinson 1999; Peralta et al. 2009). Components of self-regulation interventions, including goal setting, planning and self-monitoring, form part of competency-focused pedagogic discourse (Hmelo-Silver 2004). Such classroom practice has also been found to encourage pupils' active engagement with the lesson content and collaboration with others, thus enhancing attainment and classroom experience (Barrows 2000; Hmelo-Silver 2004; Simons and Klein 2007).

However, the use of competency-focused pedagogic discourse in lessons is limited by a focus on exam performance in main curricular subjects (McCuaig et al. 2012). In order to understand how schools might integrate competency-focused pedagogic discourse into curricular health education, the complex pathway from policy to pedagogic practice needs to be understood. Models of school policy implementation suggest that the interaction among different level influences on policy implementation determine the extent to which practice is shaped as intended by policy (Spillane et al. 2002; Walt 2008).

The findings from this study emphasize the importance of considering the interaction among multi-level implementation processes on health education classroom practice. A policy context focused on school's exam performance seemed to permeate all levels of influence on implementation: Curricular priorities shaped organisational arrangements such as timetabling and staff allocation to PSE. They re-emerged in the provision of opportunities for teachers to create professional networks and collaborate. They also seemed to influence the development and consolidation of teachers' professional

‘comfort zones’ that define the boundaries of topic coverage and of the repertoire of teaching approaches to deliver lessons. Curricular priorities and their influence on situated sense-making of the PSE policy framework also re-emerged in practice, in the extent to which PSE was visually evident within teaching spaces and in the types of teacher-pupil exchanges that occurred during lessons. Fact- or performance focused lessons characterised the majority of classroom discourse observed, and were experienced by pupils as unhelpful and not enabling them to understand and apply the lesson content.

However, pupil focus group discussions provided some evidence of understanding of health-related knowledge and its application across contexts. Patterns across the four schools suggested that these learning processes might potentially be linked to head teachers’ beliefs about and commitment to the value of health education for pupils’ personal and academic development. Whilst the selection of schools attempted to provide a systematic insight into different school contexts and catchment areas, there were no differences between findings from schools with high and low FSM entitlement rates.

Thesis structure

This thesis consists of an introduction (this section), a review of the relevant literature concluding with the aims and objectives for this study (Chapters 1 and 2). This is followed by the research design (Chapter 3), and the methods (Chapter 4) employed to meet the aims and objectives. Findings from the data collection and analysis are presented in Chapters 5, 6 and 7. These are then discussed in the context of the literature to generate conclusions and recommendations for policy, practice and research (Chapter 8). The Appendices contain supporting documents and information which are referred to throughout the text.

The objective of Chapter 1 is to clarify the rationale for this study. The chapter begins with a consideration of epidemiological data about young

peoples' health behaviours, such as eating healthily or engaging in physical activity. Only about a third of 11-15 year olds in Wales have reported consuming fruit more than once per day. Just over half have reported engaging in physical activity for more than two hours per week. By age 15, health damaging behaviours seem well established, with about a quarter of 15 year olds using alcohol on a weekly basis, and about a tenth smoking tobacco regularly or using cannabis occasionally. Drawing on a life course perspective, Chapter 1 then examines the way in which multilevel influences accumulate over time to shape health behaviours, whilst it also highlights that there are critical periods during which health promotion approaches are most likely to be effective. It discusses the relevance of the socio-ecological health improvement framework to understanding the multilevel influences on health behaviours. Chapter 1 then considers the interaction among interpersonal and intrapersonal level influences in more detail by reviewing self-regulation interventions with school aged learners to understand how these might strengthen the links between intentions and behaviours. In order to explore how components of such self-regulation interventions might be integrated into health education lesson processes Chapter 1 also draws on the educational literature. It reviews findings from evaluation studies of a specific, well-established competency-focused pedagogic approach with school-aged learners: problem-based learning (PBL).

Changes to pedagogic practice may be influenced by a number of contextual determinants, and Chapter 2 begins by reviewing theoretical approaches to school policy implementation. It becomes evident that policies can impact on sense-making directly, whilst they can also have a more indirect influence through promoting organisational arrangements. So-called 'egg-carton' structures in schools can impede collaboration among teaching staff within schools, an important process that aids implementation through the sharing of expertise among professionals. It is also evident that these multi-level determinants located at the policy-, organisational-, and social level impact on intrapersonal level influences. They shape teachers' professional self-identity, values and emotions as well as knowledge structures, which in

turn influence policy sense-making. Chapter 2 then explains how these policy interpretation processes might link to pedagogic practice in the classroom. The main research aim of this study was to identify processes that could improve school based health education practice using a social ecological examination of the implementation of the Welsh Government's Personal and Social Education policy and how it emerges in practice.

Chapter 3 provides an epistemological and methodological justification for the research approaches employed. It draws on the socio-ecological perspective outlined in Chapter 1, which has been applied to understanding the intrapersonal determinants of health behaviours and how these might be shaped by certain pedagogic approaches. The research aims and objectives suggest the adoption of a critical realist perspective, and Chapter 3 explains how an exploratory case study research approach will realise the 'full variety of evidence' reflecting the different levels of influence on implementation. Policy document analysis and interviews with professionals at different levels aimed to respond to the first research aim concerned with influences on situated sense-making of policy. Focus groups with pupils and lesson observations aimed to gain an understanding of policy in practice and how it is experienced. The chapter ends with a consideration of important quality criteria: validity, reliability, representativeness and issues concerning the triangulation of the different types of data collected.

After describing ethical approval and consent procedures, Chapter 4 outlines the research processes in response to the methodological framework presented in the previous chapter, and the research aims and objectives (Chapter 2). The research materials mentioned throughout the chapter are presented in the Appendices as indicated. Chapter 4 also describes the systematic sampling and selection strategy of the four participating schools from two local authorities in Wales (Free School Meal Entitlement >20% and <10%). It also explains the procedures for the selection of policy documents and the recruitment of participants as well as the data collection during observations, staff interviews and pupil focus groups. Methods incorporated analysis of national and local policy documents, interviews

with implementers at local authority (n=5) and school level (n=11), lesson observations (n=12 lessons) and pupil focus groups (n= 23 pupils). The chapter justifies pragmatic decisions that have been taken throughout the development and conduct of this exploratory case study. The final section offers some reflections on the research process and discusses how some of the decisions that have been made or events that have occurred might have had an impact on data collection and interpretation.

The findings from this study are presented in Chapters 5, 6 and 7 and are structured according to the research questions. Chapter 5 is concerned with the production and reproduction of PSE policy at national and local level. It examines how the Welsh Government's PSE policy framework documentation specifies the aims of PSE and how it provides guidelines for implementers to shape practice. School PSE policies are then examined to identify how national guidelines are reproduced at a local level. It is evident that the Welsh Government's PSE framework has a number of characteristics that impede its successful implementation in practice. The documentation lacks clarity about how the subject is to be implemented in schools, how lessons might be delivered, and how its outcomes are to be assessed. Discursive features within the documentation might lead to implementers considering themselves as disengaged from the process. School level PSE policies reproduced a number of these characteristics. Chapter 5 then considers how implementers perceive these national and local policies. It is evident that the lack of clarity within the Welsh Government's and school policy documentation leads to uncertainty among professionals about how to implement PSE into the on-going curriculum.

Implementers' perceptions about policy in practice are presented in Chapter 6, and it is clear that organisational, social and intrapersonal processes interact to shape these perceptions. School staff view the focus on exam grades as something that will continue to dominate practice, and this is exemplified in timetabling. The marginalisation of PSE within schools might contribute to staff not feeling responsible or willing to thoroughly engage with teaching the subject. Chapter 6 also presents views of head

teachers, school PSE coordinators and classroom teachers about the purpose of PSE and what they regard as 'best practice' to deliver the subject. Across the four different schools it is evident from these reflections that practice is shaped by policy demands on schools to deliver high exam grades. Organisational arrangements, resource allocation and knowledge and skills of staff in schools are focused on examined subjects, offering little time and space for PSE.

Chapter 7 shows how these views of practice might explain what happens in classrooms based on pupil focus group data and lesson observations. It considers how pupils experience PSE lessons and how their health knowledge might reflect intrapersonal influences on health behaviour. It is apparent that pupils dislike fact focused lessons, and that more active involvement might help them to link learnt content to lived experience. Pupils display positive attitudes towards health-related PSE topics, and demonstrate the ability to understand and apply health knowledge across contexts. Lesson observation data indicates the majority of lesson exchanges to be fact focused. However, a small proportion of competency focused lesson exchanges may show similarities to elements of self-regulation interventions. Whilst seating arrangements in the majority of PSE teaching spaces are set out to promote interactive lesson processes, teacher-pupil exchanges are predominantly focused on individual pupil work. In two of the four schools there are very few visual signifiers of the integration of PSE within teaching spaces. Particularly in one school the organisation of the delivery of lessons seemed sporadic and detached from main curriculum. However, in two of the four schools there appeared to be a greater extent of continuity of delivery with dedicated staff and lesson content aimed at delivering PSE and addressing pupil needs.

Chapter 8 considers the findings from this study in the context of the literature reviewed and the research approaches taken. The chapter begins by summarising the main arguments that emerged from the literature that has been reviewed, and the approaches taken to address the research objectives. The chapter then proceeds to examine how the findings from this

study link to earlier research by adopting a socio-ecological perspective. It begins by considering the policy context and its impact on implementation processes before taking account of the characteristics of the PSE policy framework documentation and how these might influence sense-making. It is evident that the findings from this study reiterate earlier research, highlighting the impact of schools' focus on examination grades. Specific attention is drawn to the limitations of the Welsh Government's PSE framework documentation as lacking clarity, which might be linked to uncertainty among implementers and variations in practice.

Chapter 8 then discusses the implications for theory, policy, practice and further research. It highlights the theoretical linkage between competency-focused pedagogy and self-regulation of health behaviours. Drawing on the educational and health promotion literature represents an important contribution of this study. Recommendations for policy highlight the importance of considering curricular priorities. It is suggested that it might be worth investigating whether the purpose of PSE is best served by retaining it as a separate, dedicated 'school subject'. PSE themes might be more effectively delivered as part of examined subjects.

Implementation outcomes might be enhanced if policy documents contained clear objectives and specific, practical guidance about how policy is to be enacted in the classroom. Discursive features within policy documents should be carefully examined to ensure they describe the role of implementers as intended. Implementation could be further enhanced through the provision of appropriate training for teachers and associated resources for schools. School arrangements should permit teachers to collaborate with colleagues. Further research into school based health education should take account of lesson processes and how these might link to intrapersonal influences on health behaviours. Integrating a measure of pupils' understanding and application of health knowledge into approaches aimed at evaluating the outcomes of health education interventions may provide an insight into pedagogic processes used to deliver health education. It may also have the potential to validate self-reported health behaviours.

Pupils might be able to take control of their own or each other's health behaviours or to initiate health-related changes within their own school contexts. Encouraging them to adopt such a role might hold potential for school-based health promotion interventions. Theoretical and pragmatic limitations of this study are discussed.

CHAPTER 1 School-based health education

The purpose of this chapter is to demonstrate the need for focussing on school-based health education implementation and effectiveness. Approaches to understanding young people's health behaviours are examined before evaluation studies of school based health education interventions are reviewed. The chapter then considers intra-personal influences on pupils' health behaviours and how these might be shaped by pedagogic practice during health education lessons.

1.1. Young people's health behaviours

Unhealthy behaviours are a major contributor to the development of chronic diseases (Poirier and Eckel 2002), which can have a significant impact on people's quality of life (Sprangers and Aaronson 1992; Mena-Martin et al. 2003). In addition, they continue to be a substantial burden on the UK's health system: Eighty per cent of GP visits, sixty per cent of hospital bed days and two thirds of medical emergency admissions relate to chronic conditions (DH 2004). Despite an increase in people's life expectancy and the length of time they enjoy without disability, some challenges remain (Gray 2011; NHS 2011a). Recent figures suggest that each year, at least 2.8m people die from diseases related to obesity, 6m from the consequences of tobacco use and 2.5m from alcohol-related diseases (Global Status Report April 2011). According to the Health Survey for England (2011) 22% of men and 24% of women aged 16 or over have been classified as obese (NHS 2011b). In Wales, 57% of adults have been classified as overweight or obese. Although the majority of children in Wales have been found to enjoy good general health (94%), 34% have been classified as overweight or obese (WG 2010). These patterns appear to be reflected in self-reported health behaviours.

In England, fewer than 25% of adults have reported participating in physical activity. In Wales, 35% of adults reported consuming five or more portions of fruit and vegetables per day and 29% pursuing regular physical activity. Similar figures have been reported for young people's health behaviours: According to the HBSC survey, 34.6% of 11 to 15 year olds in Wales have reported eating fruit more than once per day, the lowest rate in comparison to Scotland, Ireland and England. Just over half (52%) of Welsh school-aged children have reported engaging in regular physical activity for more than two hours per week, again the lowest rate in comparison to other countries. In addition, about one third of young people in Wales have reported spending two or more hours per day playing computer games (Brooks et al. 2006). In addition to the low proportion of young people engaging in health behaviours, by age 15 a number of health damaging behaviours seem well established. Over 25% of young people have reported consuming alcohol on a weekly basis or having been drunk in the 30 days prior to being surveyed. Referring to a similar timeframe, 16% of girls and 11% of boys have reported smoking tobacco at least once per week and 11% of girls and 10% of boys have tried cannabis once or twice (Brooks et al. 2011).

Structural disadvantage has been identified as an important influence on young people's health behaviours. School-aged children from affluent families have been found to be more likely to eat fruit and vegetables on a daily basis, and less likely to consume sweets and soft drinks. In addition, they have been found to be more likely to engage in regular physical activity, with a smaller proportion of leisure time spent physically inactive, playing video games or watching television (Brooks et al. 2006). This is in line with other findings suggesting that adolescents from lower socio-economic backgrounds consume a lower proportion of fruit, vegetable and high fibre foods and a higher proportion of high fat foods than their peers from higher socio-economic backgrounds (Wardle et al. 2003; Ball et al. 2009). Social patterning in health behaviours has also been argued to continue into later life (Lynch et al. 1997). Adults from lower socio-economic backgrounds are more likely to engage in multiple health risk

behaviours (Wardle et al. 2003; Fernald et al. 2008). These patterns have been argued to contribute to health inequalities, which are an important challenge for health policy worldwide (WHO 1999). In order to improve health by changing such behaviour patterns it is important to understand how health behaviours are established and consolidated across people's lifespan.

1.2. Understanding health behaviours: a life course perspective

Unhealthy behaviours are likely to have developed by the time young people enter late adolescence (Lynch et al. 1997; Petridou 1997; Warren et al. 2006). It has been argued that the events and influences that contribute to such behaviours over time can best be understood by adopting a life course perspective (Lynch and Smith 2005). For example, circumstances that influence people's health behaviours and shape social determinants throughout child-and adulthood can determine health in older age, such as coronary heart disease, stroke and some cancers (Barker and Martyn 1992; Kuh and Ben-Shlomo 1997; Power and Hertzman 1997; Bartley 2004; Lynch and Smith 2005; Politt et al. 2005; Galobardes et al. 2006). Even influences on foetal and child health and development can have implications for adult health five and six decades later (Barker 1998). An understanding of the influences on health behaviours across people's lifespan therefore holds considerable potential for health improvement as it can effectively inform the timing and structuring of interventions (Osler 2006; Berkman 2009; Liu et al. 2010).

The suggestion that the exposure to risk accumulates over the life course and leads to illness and disability in later life also recognises that different mechanisms may operate at different points along people's developmental pathway (Link and Phelan 1995; Liu et al. 2010). Therefore, certain approaches to health promotion may have their greatest impact at specific time points. As there are critical developmental periods for language acquisition during which external determinants have their greatest influence

(Rogers 1972), there are also critical periods for shaping health behaviours. For instance, early adolescence beginning at 11 years has been described as the most malleable and impressionable period. During this time young people are more susceptible to persuasion and more likely to develop drug and alcohol dependence (Pascale and Streit 1974). Early adolescence is also a critical period in the development of sexual behaviours that may lead to acquiring sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV) (Santelli et al. 1999). Goldfield et al. (2012) have argued that school age is an important critical period for improving young people's dietary choices and physical activity levels. They offer an important window of opportunity to influence young people's health behaviours and prevent trajectories of poor health (Bonell et al. 2007; Guyer 2009). Whilst these arguments emphasize the importance of timing for health promotion interventions, they also suggest the need to map out in detail the multitude of contextual events or influences that accumulate over time and shape health behaviours. Socio-ecological (SE) health improvement frameworks take account of these multi-level influences.

1.3. Socio-ecological (SE) health improvement framework

Whilst early models considered adult health behaviour as an intra-individual phenomenon, as the result of free choice and the consequence of poor lifestyle management, socio-ecological models of health behaviour acknowledge that these choices are influenced by cultural, economic and political contexts (Lynch et al. 1997). Such a perspective considers both individual behaviours as well as environmental determinants (Bronfenbrenner 1974), located at the micro-, meso-, exo-, macro- and chrono-system level. The microsystem describes face to face influences that occur within informal networks among family and friends. The meso-system refers to an accumulation of micro-systems and incorporates interrelations among settings such as family, school, peer group, and church. The exosystem refers to experiences that directly influence a person's set of microsystems, such as a person's sudden redundancy and its social and

economic impact on his or her family. The macro-system describes determinants within the larger social system, within which the individual is embedded, and refers to wider conditions such as economic stability or unemployment. The chronosystem describes an accumulation of a person's experiences over the course of his or her life, such as environmental events or major transitions.

Drawing on Bronfenbrenner's ecological perspective, McLeroy et al. (1988) developed a socio-ecological (SE) framework for health improvement, considering behaviour as determined by intrapersonal-, inter-personal-, organisational-, community-, and policy level factors, which reflect the range of strategies available to inform health promotion programmes. Multi-level interventions are able to address several factors that influence behavioural and social influences on people's health over time. The value of such SE perspectives of health promotion has received continued support in the health promotion literature (McDonald et al. 2012). Public policies represent the broadest level of influence, and interventions at this level include laws and regulations that, for instance, impose changes to water supply, sanitation, housing and food quality. Community-level influences refer to the relationships among organisations, institutions and informal networks within defined boundaries. McLeroy et al. (1988) has conceptualised community-level influences in three different ways. First, they are regarded as mediating structures, face to face primary groups to which individuals belong such as families, personal friendship networks and neighbourhoods, corresponding to Bronfenbrenner's meso-system. Second, community-level influences are considered as describing the relationships among organisations and groups located within a certain geographical area such as local health service providers or local schools. Third, they can also refer to an understanding of community in political or geographical terms. Health promotion interventions aimed at influencing community level factors include activities or programmes that facilitate better access for disadvantaged individuals or groups to wider political and power structures. This might involve the development of contact networks among divergent

communities or the promotion of involvement of groups or individuals on community boards and in community activities relevant to health.

Institutional or organisational level factors refer to formal and informal rules and regulations for operation. Interventions would, for example, involve a change in the type of food available to encourage healthy choices, or the adoption of technology to improve ergonomics or to minimize the exposure to hazards. Organisational level influences can also be in the form of social norms and values, shaped internal regulations or policies, such as a smoking ban or work-life balance policies (McLeroy et al. 1988). Interpersonal processes describe formal or informal social networks and social support systems including family, work groups and friendship networks; and interventions at this level draw on social support. Intrapersonal factors incorporate a person's knowledge, attitudes, behaviour, self-concept and skills as well as the developmental history of the individual. Interventions at this level are based on psychological models, such as attitude change models (the Theory of Reasoned Action - TRA), locus of control and models of stress and coping and intervention approaches at this level include mass media, support groups, and health education programmes.

The way in which processes at these different SE levels of influence interact to determine health behaviours, can be examined using social cognitive theory (SCT) principles. The SCT suggests that a continuous, dynamic interaction among environmental aspects, personal factors and attributes of the behaviour itself can bring about behaviour change (Bandura 1977; Redding et al. 2000). These interactions shape people's perceptions about facilitators and barriers to engaging in a particular behaviour and influence expectations about the outcomes of these behaviours. They also promote self-efficacy, the knowledge of being able to engage in a particular activity based on past experiences (Armitage and Connor 2000). The SCT is one of the theoretical approaches most frequently used to underpin current school-based health promotion interventions, alongside the behavioural learning theory (BLT) and the health belief model (HBM) (Dobbins et al. 2009). The health belief model (HBM) proposes that an individual's perceived

susceptibility of developing health problems, the perceived impact of health problems on the quality of life and the belief that behaviour change will be effective in preventing the health problems, can facilitate health behaviour change (Hochbaum 1958; Rosenstock 1966; Blackwell 1992). The behavioural learning theory (BLT) approach is based on principles of antecedents and consequences and their effects on behaviour (Skinner 1953). Behavioural learning theories assume that behavioural change is initiated through internal thoughts and external cues. The BLT suggests a one-way reactive causal pathway from the occurrence of certain initiating factors to the behaviour, which has been criticized for disregarding less conscious influences that are not linked to immediate rewards, such as past experiences (Blackwell 1992). The HBM has also been criticized for suggesting that health behaviour is directly influenced by certain variables rather than shaped by a moderation through behavioural intentions (Stroebe 2000). Other important determinants such as social influence and positive outcomes of unhealthy behaviours, for instance the initial pleasant taste of sweet or fatty foods, are not taken into account (Stroebe and DeWit 1996). Furthermore, it has been noted that the HBM is limited in that it lacks explicit information about how influential variables are related, suggesting they exert their effect in an additive way (Stroebe and DeWit 1996). The limitations of the BLT and the HBM suggest that the SCT may be more able to explain the dynamic, complex interactions between different influential factors on health behaviours, especially at an individual level.

Whilst regarded as the strongest theoretical basis for school based health promotion interventions, SCT may not always be able to fully explain health behaviour change. A randomized controlled trial of an intervention aimed at reducing pre-schoolers' television watching was unable to identify links between a reduction of time spent in front of a television and social cognitive theory constructs. Zimmermann et al. (2012) have applied three social cognitive theory constructs (volitional control, self-efficacy, and outcomes expectations), and only outcome expectations had a meaningful effect. Whilst they suggested that merely highlighting concerns about children's media use may instil a change (Sebire 2011), they also noted that

the changes they observed may have been explained by factors not captured by the SCT. Bandura (2000) has noted that some SCT principles might be challenged by contemporary political and social conditions, migration and social fragmentation or technologies that control people's life environment. Nevertheless, the SCT has been found to be a useful framework for understanding adolescents' dietary behaviours (Ball et al. 2009) and used as a theoretical basis of school-based health promotion interventions (e.g., Reynolds et al. 2000; Perry et al. 2004; Bere et al. 2006). Interventions aimed at improving diet and physical activity in school aged children have been found to be most effective if they were based on SCT principles linking multi-level influences on behaviours (Baranowski et al. 2003; Nixon et al. 2012). As noted, multilevel influences on behaviours include wider contextual influences, social determinants as well as intrapersonal characteristics (McLeroy et al. 1988). Lesson interactions between teachers and pupils constitute one important social influence. Before focussing on specific lesson processes, intrapersonal influences on health behaviours will be considered.

1.4. Understanding intrapersonal influences on health behaviour change

Health knowledge represents one important intrapersonal influence on health behaviours, although additional self-initiated changes are required for these behaviours to occur (Bandura 2005). The aforementioned Theory of Reasoned Action (TRA) explains why health knowledge alone is insufficient in facilitating a sustainable behaviour change (Fishbein and Ajzen, 1975). Knowing about the negative effects of smoking or the positive impact of a healthy lifestyle might change people's attitudes towards health behaviours. Attitudes reflect a person's disposition towards a particular behaviour, an overall positive or negative evaluation of a target behaviour. Attitudes are one of two social cognitive variables that influence people's intentions to engage in a particular health behaviour. The second social cognitive variable refers to subjective norms, an individual's expectation

that important others would expect them to engage in that particular target behaviour alongside the motivation to comply with this expectation (Fishbein and Ajzen 1975; Ajzen 1985). Attitudes and subjective norms lead to the formation of behavioural intentions. Intentions are considered to be the most immediate predictor of behaviour (Sheppard et al. 1988; Randall and Wolff 1994). As the TRA does not take factors outside a person's volitional control into account, it has been expanded and behavioural control has been added as an additional third variable (Sutton 1998). Perceived Behavioural Control refers to an individual's assessment of his or her capacities and availability of resources to engage in the desired behaviour (Stroebe 2000; St Claire 2003). Ajzen (1985) has suggested perceived behavioural control to be an independent contributor to the formation of intentions and termed the new theory 'Theory of Planned Behaviour' (TPB). The TPB represents one important social cognitive theory approach, which is considered as the most widely used and evaluated theoretical approach applied to develop health promotion interventions (Fuchs 1974; Fries and Crapo 1981; Munro et al. 2007; Hagger and Chatzisarantis 2009).

Drawing on such social cognitive theory principles concerned with individual agency, it has been noted that self-management can be an important facilitator in closing the intention-behaviour gap, the adoption of and adherence to health behaviours (Bandura 1997; Nordin 1999; Bandura 2000, 2005). Indeed, it has been suggested that self-regulation should be a central concept within health promotion: *'By managing their health habits, people can live longer, healthier and retard the process of aging. Self-management is good medicine'* (Bandura 2005, p. 245). The concept of self-regulation is perhaps best illustrated by noting its potential for sustainable change: *'If you give a man a fish, you feed him for a day; if you teach a man how to fish you feed him for a lifetime.'* (Confucius (551 – 479 B.C), cited in Zimmerman et al. (1996). Self-regulation describes any efforts people make to change their behaviour towards achieving their goals through controlling and directing their own actions (Fiske and Taylor 1991; Carver and Scheier 1998). Schunk and Zimmerman (1994) have defined self-regulation as *'Self-generated thoughts, feelings, and actions which are systematically oriented*

toward the attainment of goals' (p. IX). Definitions of self-regulation vary in specific aspects but are based on three generic components: 1) the adoption of goals that determine people's efforts and strategies for reaching them, 2) self-monitoring of health behaviours in relation to these self-determined goals, and 3) self-reactive factors that include self-motivation through incentives and social support (Bandura 2005).

Self-regulation interventions have been developed and applied in both clinical and non-clinical contexts, to encourage a change in health behaviours or the management of chronic diseases. Such interventions have been found to have sustainable effects on health behaviours in clinical populations (Sniehotta et al. 2006; Ziegelmann et al. 2006), individuals at risk (Armitage 2008), adolescents in school settings (Araujo-Soares et al. 2009) and members of the general public (Darker et al. 2010). Self-regulation interventions have been effective in promoting health behaviour change such as dietary fat intake (Armitage and Connor 2000), breast self-examination (Orbell et al. 1997), oral self-care (Sniehotta et al. 2007), fruit and vegetable intake (Chapman et al. 2009) and use of stairs (Kwak et al. 2007). A randomized controlled trial to evaluate the effectiveness of a self-regulation intervention aimed at promoting physical activity in adult women has found medium sized effects at the respective follow-up time points (Stadler et al. 2009). Similarly, Wiedemann et al. (2008) have found that self-regulatory skills had a considerable effect on encouraging healthy eating in adults. Self-regulation interventions have also been effective in changing health outcomes such as reduced cholesterol levels (Clark et al. 1997), or improved quality of life and reduced pain in arthritic patients (Lorig 1990; Lorig and Holman 2003). Haskell et al. (1991) have used a self-management system to initiate lifestyle changes in coronary artery disease patients to reduce the risk of heart attacks whilst Anderson et al. (2010) have been able to link self-regulatory skills to increased fibre intake and physical activity levels as well as a reduction in fat intake. Self-regulation interventions have also been effective in improving young people's skill development and adaptive functioning (Buckner et al. 2009).

Drawing on one of the key self-regulatory behaviours, planning, Gollwitzer and Sheeran's (2006) meta-analysis has identified medium sized effects of planning interventions on health behaviours, and concluded that 'if-then' plans help people to see and seize good opportunities to move toward their goals. They also promote effective management of problems people may encounter during goal striving, thereby increasing the likelihood of attaining those goals. Considering the diversity of contexts in which self-regulation interventions have had an impact on health behaviour change and health outcomes, they may also hold potential to enhance the effectiveness of school-based health promotion or health education interventions. Before considering how self-regulation elements might be applied in this way, the next section will introduce the role of schools as health promotion setting.

1.5. Schools as health promotion settings

School-based interventions have the capacity to reach the majority of young people from a range of backgrounds (WHO 2004; McCuaig et al. 2012). They are able to shape health behaviour patterns during a time when these patterns are most malleable (Bonell et al. 2007; Guyer 2009; Goldfield et al. 2012). Many school-based health promotion efforts are based on the sentiment that *'healthy young people who attend school tend to learn better and a good education influences the development of a healthier population'* (Jourdan et al. 2010, p. 519). The relevance of school settings to health promotion is further supported by the links between school performance, socio-economic disadvantage and health related quality of life. For instance, a study across seven European countries has found that levels of educational achievement and annual income were linked to health-related quality of life (VonRueden et al. 2006), as well as self-esteem and psychological well-being (Davidson et al. 2006). The Welsh Government has also highlighted the link between socio-economic disadvantage and lower levels of academic performance: *'as the level of FSM entitlement increases, the level of achievement decreases'* (WG 2008b, p.1).

Such inequalities develop out of a multitude of social and structural influences that accumulate and mutually interact over time to influence people's physical health and their ability to maintain good health in adulthood (Bartley 2004). Several approaches aimed at dealing with such influences have been shown to be effective in improving child outcomes, such as parent education or home visiting programmes. The use of mass media to promote positive images of parenting or local initiatives such as baby massage courses have been identified as non-stigmatising approaches to improving outcomes for the most disadvantaged. In addition, it has been argued that a focus on promoting sexual health in school-aged children can have long-term benefits and play an important role in reducing inequalities in health (Hallam 2008). Thus, although school-based health promotion is unable to address all of the aforementioned socio-ecological levels of influence, it represents one important approach to reducing the impact of socio-economic disadvantage on health. The provision of adequate knowledge and skills can influence people's socio-economic position or employability. Encouraging certain patterns of thinking and decision-making within school-based health promotion can shape healthy choices and lifestyles (Kickbush 1992; Acheson 1998; Cutler and Lleras-Muney 2006; Paakari and Paakari 2012). School-based health promotion has a central role in providing pupils with the skills that enable them to make sense of health messages, resolve health problems and make healthy choices (Kickbush 1992; Stokols 2000; Begoray et al. 2009). In addition, it can enable pupils to communicate and interact effectively, deal with emotions, and develop empathy and self-awareness (Lynagh et al. 1997; Nutbeam 1998). It has been suggested that such comprehensive school health promotion approaches can take account of a number of socio-ecological level influences on health behaviours (Bronfenbrenner 1974; McLeroy et al. 1988; Stokols 1996; Paakari and Paakari 2012; Simovska 2012). These are reflected in the holistic approach which defines the priority action areas of health promotion, namely the development healthy public policies, the creation of supportive environments, the strengthening of community actions, the development of personal skills and the reorientation of health services (WHO 1986).

The application of these priority action areas to school settings has led to the concept of Health Promoting Schools (HPS) (Flisher et al. 2000). HPS approaches incorporate three key elements: 1) curricular teaching and learning 2) school organisation, ethos and environment, and 3) partnerships and services (WHO 1986). The curricular component refers to planned teaching and learning and is concerned with lesson content and processes. It suggests that health behaviours can be promoted through the use of appropriate teaching approaches, the involvement of students in the planning of the curriculum, the collaborative working among staff to facilitate an integrated curriculum, the links to other school activities and relevant policies and resources. The organisational component refers to a physical and social environment that is safe and stimulating and that encourages respectful interactions and participation in decision-making, supported by leadership commitment. Working in partnership with parents, other members of the community, local businesses and voluntary organisations provides a rich context for valuable student experiences. Although all three of these HPS elements are important in shaping young people's health behaviours, McCuaig et al. (2012) have argued for the learning and teaching element to be the most influential one (Rowling et al. 1998). To examine this argument in more detail, the next section reviews findings from evaluations of school based health education interventions.

1.6. Evaluations of school based health education

Papers evaluating school-based health education or school-based health improvement interventions that included educational or lesson components were reviewed with an emphasis on how effective they were in changing health knowledge, health behaviours or health outcomes such as obesity. Health education interventions have been found to improve pupils' health knowledge. However, their impact on the transformation of this knowledge into sustainable health behaviours and health outcomes appears to be limited (Connelly et al. 2007; Begoray et al. 2009; Dobbins et al. 2009; Harris et al. 2009). For example, a health promoting schools programme aimed at

improving dietary behaviours in pupils has failed to change individual eating patterns despite achieving positive attitudes towards healthy eating (Inchley et al. 2007).

A review of physical activity interventions found that although pupils' health related knowledge increased, it had a limited effect on health behaviour changes or a reduction in pupils' Body Mass Index (BMI) (Harris et al. 2009). Similarly, whilst nearly all HPS based interventions reviewed by Lister-Sharp (1999) have been found to improve health knowledge, only some have led to a change in dietary behaviours and fitness levels. Others have concluded that there is no strong evidence for the effectiveness of health promotion interventions in enhancing the health of students (Mũkoma and Flisher 2004). The lack of impact on health behaviour change despite an improvement in health knowledge, seemingly common to many school based health education interventions, has been attributed to the way in which health education lessons are delivered (McCuaig et al. 2012). However, lesson processes appear to have received very limited attention in school-based health promotion or education interventions (Formby and Wolstenholme 2012). This is surprising given that teacher-pupil exchanges during lessons can be very influential for the way in which knowledge is assimilated and used by pupils (Bernstein 1999). Attending to ways in which health education lessons are delivered might offer an important opportunity for future school-based health education interventions: small changes to already established elements of the curriculum might change the ways in which pupils deal with the health knowledge provided to them. It is important to recognise that teacher-pupil exchanges during lessons are shaped by a number of socio-ecological levels of influence (McLeroy et al. 1988). Therefore, influences on lesson processes will be examined in more detail.

1.7. Multi-level determinants of lesson processes in school-based health education

It is evident that the implementation of health promotion interventions in schools is influenced by a number of contextual determinants, which may only promote certain elements of these interventions and limit others. For example, a review of Health Promoting Schools (HPS) approaches has suggested that none of the interventions implemented all components of the approach (Lister-Sharp et al. 1999). The majority incorporated classroom-based or curricular approaches. Only a small number also integrated changes to the school environment and family or community engagement due to other priorities (Lister-Sharp et al. 1999). Such a dissonance between policies or protocols and practice can undermine the purpose of interventions (St Leger and Nutbeam 2000; Ridge et al. 2002; Basch 2010; Marks 2010). Indeed, it has been found that an incomplete implementation of complex, multi-dimensional school based health education interventions can limit their effectiveness (Deschesnes et al. 2003). Examples of such interventions were identified in Australia (Marshall et al. 2000), Europe (WHO 1997b), as well as the US (Allensworth and Kolbe 1987).

Such selective implementation has been mainly attributed to contextual or environmental influences that reciprocally interact with individual agency (McLeroy et al. 1988; Spillane et al. 2002). For example, due to policy-driven curricular priorities, very few schools would make the links between academic achievement and pupil wellbeing (Formby and Wolstenholme 2012), despite them becoming increasingly clear in the literature (Crow 2008; Aggleton et al. 2010; Goodman and Gregg 2010). Curricular priorities are mainly represented by grades in examined subjects which determine the allocation of financial and other resources in schools (Basch 2010). For example, a school-based health promotion programme in Australia has been described as poorly integrated into the main curriculum and marginalised by resource allocation to examined subjects (McCuaig et al. 2012). In addition to the allocation of financial resources within the school, the implementation of Personal, Social, Health and Economic (PSHE) education in English secondary schools has been found to be limited by a key tension between

schools' focus on exam grades in core curriculum subjects driven by league tables and a predominant focus on grades, and their statutory obligations to ensure pupils' wellbeing (Best 2008; Perryman et al. 2011). If schools considered PSHE as competing with academic subjects, they invested less time and effort into creating a comprehensive PSHE curriculum. This has been found to make PSHE '*more vulnerable than other subject areas*' (Formby and Wolstenholme 2012, p. 11), a situation seemingly similar to that in Wales. The Inspectorate for Education and Training in Wales (Estyn) have noted that time for PSE is limited in schools and that professional development related to PSE is marginalised, affecting the quality of the subject (Estyn 2007b, c, a).

The prioritization of examined subjects has also been found to influence variations in how PSHE is delivered (Ofsted 2005, 2007; Crow 2008; Macdonald 2009; Ofsted 2010). This demonstrates an interaction between the policy context and organisational arrangements as suggested by McLeroy et al. (1988). Due to time and resource constraints, PSHE is predominantly delivered through discrete lessons or dedicated 'drop-down' days, during which the normal timetable is suspended and PSHE is delivered for a whole day. Although this is considered as poor practice and insufficient to achieve the intended aims, this approach appears to be popular (Ofsted 2005; Macdonald 2009; Ofsted 2010).

The fact that PSHE is not examined and does not gain any qualifications results in its lower status with teachers and pupils (Richardson 2010). Assessment practice is an important element in shaping pedagogic practice as it is '*closely bound up with the legitimization of particular educational practices*' (Broadfoot 2001, p. 87). Examination regimes also define legitimate knowledge that is characteristic of 'proper school subjects'. Health education usually aims to inform pupils about how to prepare healthy food, how to exercise, how to brush one's teeth correctly, how to recognise healthy foods or how a balanced diet looks like. Such lessons do not contribute to exam grades, thereby have a lower status and are considered as time spent 'off task'. Therefore, it has been found that despite explicit

policy efforts to enhance the status of such health related knowledge, PSHE is likely to remain marginalised (Whitty 2002).

Staff arrangements that prioritize examined subjects often involve the random allocation of teachers to delivering PSHE as part of their timetable. Whilst some are enthusiastic about teaching the subject, a large number of teachers are reluctant to delivering such lessons, and they tend to be particularly uncomfortable with sex and relationship education as they feel insufficiently qualified or confident (Ofsted 2007, 2010; Formby et al. 2010a; Formby 2011; Formby 2011b). It has been noted that this reluctance is also due to a number of other reasons that emerge from the interaction between the policy context and individual or intrapersonal influences on policy implementation (Spillane 2002). In order to overcome such issues, many schools invite external speakers to delivering lessons that are perceived as difficult by teachers (Macdonald 2009; Emmerson 2010; Ofsted 2010). However, the quality of teaching provided by these speakers and the integration of such lessons into the on-going PSHE curriculum and overall teaching can be poor. This connects to earlier arguments concerning the challenges associated with integrating non-teaching professionals into the delivery of school curricula (Spratt et al. 2006; Kidger et al. 2009). These arguments demonstrate the importance of contextual influences on the implementation school-based health education, and there appears to be a pathway from policy level influences to lesson processes. Therefore, the next section will examine the context and development of Personal and Social Education in Wales more closely.

1.8. School health education policy: Personal and Social Education (PSE)

The importance of school-based health education is reflected in educational policies: Elements of the National Curriculum aim to explicitly support young people in developing personal and life skills. The Education Reform Act 1988 requires schools to provide a balanced and broadly based curriculum which promotes the *'spiritual, moral cultural, mental and*

physical development of pupils and prepares pupils for the opportunities, responsibilities and experiences of adult life' (p. 27). The mandatory National Curriculum, which has been introduced with this Act, distinguishes between core and other foundation subjects such as English, Mathematics, Science, Technology, History, Geography, Modern Languages Music and Physical Education, and non-mandatory cross-curricular themes such as Health Education, Citizenship, Careers Education and Guidance, Economic Awareness, and Environmental Education. In England, this non-statutory component of the curriculum is termed Personal, Social, Health and Economic Education (PSHE) (DCSF 2010), in Wales Personal and Social Education (PSE). PSE aims to make an essential contribution in a balanced and holistic education by helping children and young people to be more effective personally, and to become a healthy and responsible member of society (WG 2008a).

PSE was first introduced by the Qualifications, Curriculum and Assessment Authority for Wales (ACCAC) in 2000, based on the requirements set out in the 1996 Education Act: *'Each pupil should receive a broad and balanced curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society and prepares pupils for the opportunities, responsibilities and experiences of adult life'* (Section 351, Education Act, 1996). In October 2002 it was announced that from September 2003 PSE will be a statutory component of the basic curriculum for all pupils aged between 5 and 16, whilst Work Related Education (WRE) will be statutory for pupils aged between 14 and 16 from September 2004. The decision to make PSE statutory was based on detailed advice from ACCAC, following evaluations of the implementation of both PSE and WRE frameworks within schools that supported such changes. It was anticipated that making PSE and WRE statutory would ensure all pupils received PSE and WRE and encourage good practice. A new PSE framework for 7 to 19 year olds in Wales was published in 2008 (WG 2008a).

Such developments should be seen in the context of the Education Act 2002 which specifies that the Welsh Government may establish a complete national curriculum and define attainment targets, programmes of study and assessment arrangements as considered appropriate. However, the Act also notes that such an order may not require the allocation of time periods to teaching of programmes or specifying skills and processes, nor the making of timetables. These functions may be carried out at local education authority or school level, as well as the implementation of arrangements and assessment processes. Accordingly, the new PSE framework was '*issued pursuant to the powers contained in section 108 of the Education Act 2002*', and specified that although the delivery of PSE has become a statutory requirement for all maintained secondary schools in Wales from 1st August 2008, the decisions about approaches used to deliver PSE remain at the discretion of individual schools.

The new PSE framework suggests five themes: 1) Active citizenship, 2) Health and emotional well-being, 3) Moral and spiritual development, 4) Preparing for lifelong learning, and 5) Sustainable development and global citizenship. The second of these themes, health and emotional well-being, is focused on the maintenance of learners' emotional and physical health and well-being, on sustaining their growth and development and on ensuring pupils know how to keep themselves safe. Physical health and wellbeing is to be fostered through the promotion of adequate nutrition, sufficient exercise and appropriate hygiene, as well as the encouragement of healthy choices. The policy document notes that a central element of PSE should be the processes that equip learners with the knowledge and practical skills to make informed decisions, which would reflect intrapersonal determinants of health behaviours. However, the implementation of the PSE framework and its impact on pupil outcomes has received limited attention: Although the HM inspections scheme has incorporated PSE into its assessment routine, no peer reviewed papers that report on an evaluation of PSE in Wales could be identified at the time of writing. Whilst it was important to consider findings from these inspection reports it was also necessary to review peer-reviewed papers reporting findings from evaluations of school based health

education interventions elsewhere in order to demonstrate the need to focus on lesson processes.

1.9. Lesson processes in PSE and PSHE

PSE Lesson processes in Welsh schools have been evaluated as *'good or very good in almost half of the classes'* (p.24) (Estyn 2001). In this report, good PSE teaching has been defined as encouraging pupils to adopt an investigative and enquiry-based approach to learning, to respond to open-ended questions and to engage in collaborative learning. The facilitation of pupils' active participation within the lessons and the use of a variety of learning and teaching approaches have been recognised as helpful. These views indicate that there is awareness among Estyn inspectors about how PSE should be taught and that competency-based pedagogic approaches are regarded as most effective. However, on the whole, lessons have been found to be lacking opportunities for pupils to develop the necessary skills. Too much emphasis on written outputs and worksheets and a narrow range of teaching and learning methods have been described as less effective (Estyn 2001). These observations reflect findings from evaluations of PSHE in English schools, which criticized lesson processes as being too fact-focused and didactic (Estyn, 2007c; Formby and Wolstenholme 2012; Simpson and Freeman 2004). It has been argued that such performance-focused lesson processes reflect a strong alignment of pedagogy to a science-dominated secondary curriculum, focused on GCSE grades in examined subjects (Bernstein 1999; Whitty, 2002).

As a result, PSE or PSHE lessons may not be able to fulfil their purpose. In fact, Simpson and Freeman (2004) have noted that *'the current offering of PSHE in schools has little to reassure health or education professionals that school students are being offered scope for informed discussion on issues central to their development'* (p. 342). Indeed, performance-focused pedagogic approaches have been found to be less effective in helping students acquire health-related competencies and everyday knowledge pertinent to their personal and social development (Whitty et al. 1994a;

Bernstein 1999; Ivinson 2007). These arguments are reflective of pupil experiences: It has been found that only a small proportion of pupils regarded PSHE lesson topics as interesting and only few acknowledged the relevance of learning about important aspects of their lives or understanding pubertal changes happening to their bodies (Parliament 2007; Martinez and Emmerson 2008; Formby 2011).

It has been noted that pupils recommended PSHE lessons should provide more opportunities for interaction than examined subjects, because they would help them apply the knowledge to real life (Brown et al. 2011; Formby 2011). These views connect to findings from a focus group study evaluating a curriculum-based programme in Canada aimed at promoting pupils' health and wellbeing by enhancing their health related knowledge and skills. Pupils have criticized classroom exchanges as being dominated by teacher talk which largely involves the copying of texts from the screen or responding to closed questions. Pupils have suggested the adoption of alternative approaches to create lessons that involve and engage them as these may be more effective or enjoyable (Begoray et al. 2009). These experiences are in line with other arguments suggesting performance-focused pedagogy is unhelpful for developing health related competencies.

From reviewing the literature it appears that pupils' understanding and application of health knowledge as one important intrapersonal determinant of health behaviour has not been taken into account in previous evaluations. This may be due health education interventions lacking sufficient attention to theoretical approaches that explain how health knowledge might be transformed into health behaviours through interpersonal mechanisms of pedagogic practice. Although policy evaluation findings about lesson processes in PSE in Wales provide an important insight into the quality of delivery, Estyn evaluations have been limited in their focus on lesson outputs with less emphasis on the processes that may explain them. Outcomes have been evaluated using pupil questionnaires, school documentation and lesson observations. Similarly, Formby and Wolstenholme's (2012) evaluation of PSHE appeared to focus on describing

more the organisation of the subject than lesson processes. Their study incorporated a large-scale survey asking questions concerned with curriculum coverage and provision, delivery models, use of assessment, workforce and support for PSHE education, and perceptions of effectiveness, although no further details about the questionnaires were provided. Data from these questionnaires were then used for descriptive statistics. In-depth case studies of a sub-sample of self-selecting schools employed interviews with professionals at different levels and data was subjected to thematic analysis. The in-depth case studies did not appear to incorporate lesson observations. Similarly, Brown et al's (2011) evaluation of the delivery of PSHE in a London borough did not report the number of participating schools, but only explained why convenience sampling was necessary. The validity of the questionnaire was not reported, interview and focus group data was collected by means of note taking or notes taken by participants on flipchart paper as a record of discussions that had taken place.

Formby and Wolstenholme's (2012) evaluation of PSHE in England has also been limited in that it did not attempt to capture multi-level influences on the implementation of the subject in schools, as would be suggested by a socio-ecological perspective. Therefore, the key barriers that they have identified appeared to be limited to processes located at the policy level of influence: the non-statutory status of the subject and the marginalisation of PSHE through curricular subjects. Their evaluation did not examine pupils' understanding and application of health knowledge, classroom discourse or teachers' views of practice to identify the pathway between policy level influences, classroom exchanges and their impact on intra-personal influences on young people's health behaviours.

From reviewing the literature it appears that the number of peer-reviewed papers reporting on evaluations of PSHE in England is very small, and that none seemed to have focused on PSE in Wales. In addition, the studies that have been published seemed somewhat limited in terms of theoretical and methodological approaches. However, the findings from these studies

reiterate the need to examine lesson processes in more detail, and therefore the next section focuses on how school based interventions utilized certain types of interactions between teachers and pupils during lessons to shape pupils' health behaviours.

1.10. School-based self-regulation interventions

The literature reviewed so far indicates that limited attention has been given to lesson processes within evaluations of school based health education interventions. It also indicates that the limited effectiveness of such interventions to create sustainable behaviour changes may be attributed to lesson processes. It is therefore important to draw on literature specifically concerned with processes that promote sustainable health behaviour change. Self-regulation has been established as effective in changing health behaviours and outcomes. In order to examine in detail how this might work in school classrooms it is important review the impact of self-regulation interventions on school-aged learners' health behaviours. The literature review conducted for this section aims to identify how: 1) self-regulation has been conceptualised, defined and operationalized with school aged learners, and 2) how effective those interventions have been in achieving health- related outcomes. In order to provide answers to these two questions a structured literature review has been carried out, informed by systematic literature review principles. The literature search strategy and a table with details about the studies reviewed have been appended (Appendix 1). Six papers have been included in the review. All interventions reviewed were delivered to children between 8 and 13 years of age, while one (Barnett et al. 2008) was a pre-school intervention. All studies employed a randomised controlled design, with sample sizes of between 33 and 2087 participants, whilst one was a pilot study with 33 pupils (Peralta et al. 2009). All interventions were delivered within a school setting, either as part of a whole school strategy (Dishman et al. 2004) or embedded within curricular lessons (Robinson 1999; Kam et al. 2004; Barnett et al. 2008; Araujo-Soares et al. 2009; Peralta et al. 2009). Four of the interventions were delivered by teachers, who had been trained or supported through research staff

(Robinson 1999; Dishman et al. 2004; Kam et al. 2004; Barnett et al. 2008). All studies measured adherence to delivery protocols, controlled for baseline differences, and reported on attrition.

Four of the six papers reported on interventions that used self-regulatory strategies to promote health behaviours. These consisted primarily of classroom-based lessons aimed at encouraging children to monitor and self-regulate health related behaviours (Araujo-Soares 2009; Peralta 2009; Robinson 1999). In one case these lessons were combined with physical education sessions (Dishman 2004). The findings have shown that interventions using lesson processes that encourage pupils to develop self-regulatory behaviours, such as goal setting and self-monitoring, were successful in promoting health behaviours or health outcomes. They achieved a reduced BMI in primary school children and a reduction in sedentary leisure activities (Peralta et al. 2009; Robinson 1999), improved self-efficacy and physical activity levels and sustained this increase for some time after the intervention was completed (Araujo-Soares et al. 2009; Dishman et al. 2004). Two of the six papers focused on the use of self-regulatory strategies to promote positive classroom behaviours (Kam et al. 2004; Barnett et al. 2008). The promotion of self-regulation of classroom-related behaviours to encourage self-regulatory speech and social problem solving has improved pupils' classroom experience and delay the development of challenging behaviours in special education students (Kam et al. 2004; Barnett et al. 2008).

The literature reviewed here suggests that self-regulation interventions seemed to have a positive effect on children and young people's personal or academic development. However, these studies varied in the application of self-regulatory components within lessons (self-monitoring, goal setting and self-reactive influences). All papers reported on goal-setting and self-monitoring (Robinson 1999; Dishman et al. 2004; Kam et al. 2004; Barnett et al. 2008; Araujo-Soares et al. 2009; Peralta et al. 2009). Self-reactive influences as described by Bandura (2005) were present in the form of reinforcement or social learning elements such as modelling, and these have

been mentioned in three papers (Robinson 1999; Dishman et al. 2004; Kam et al. 2004). The use of collaborative or cooperative learning has been described in three papers (Dishman et al. 2004; Kam et al. 2004; Barnett et al. 2008). Cooperative learning seeks to facilitate group work towards a common goal or unified task that develops out of shared meaning. It has been found to enhance learners' social development and academic achievement (Vermetten et al. 2004; Fawcett and Garton 2005; Sharan 2010). Having examined the elements of self-regulation interventions that appeared to have been effective in changing health behaviours and outcomes in young people, the next section seeks to establish a link between lesson processes and intrapersonal influences on health behaviours. More specifically, it aims to identify whether there are components of established pedagogic approaches that are similar to elements of self-regulation interventions reviewed in this section. The existence of similarities and links might offer scope for enhancing school-based health education.

1.11. Pedagogic practice and intrapersonal determinants of health behaviours

Pedagogy refers to lesson processes, the 'how' of education, exchanges taking place between teachers and pupils in the classroom. It has been described as a set of instructional techniques that aims to facilitate learning and offer opportunities for the acquisition of knowledge and skills within a particular social and material context (Siraj-Blatchford et al. 2002). Offering a very coherent approach to understanding the different principles of pedagogic transmission and acquisition, Bernstein's (1971) earliest contributions to the sociology of education focused on the relationship between language and social class. He attempted to understand why working class students performed comparatively poorly in language based subjects, whilst their mathematical performance equalled that of their middle class counterparts. Bernstein (1971) noted that the linguistic codes used by a person represent their social identity. He distinguished between two types of linguistic codes, elaborated and restricted codes. Where the latter is used in the assumption that the listener shares understandings and is

usually found among friends and families, the former is more explicit and does not require any prior knowledge or background information. Bernstein (1971) has argued that these codes may be shaped by the types of social relations, the quality of social structures or the degree of social mobility. He has also argued that restricted codes are more prevalent in working class, whilst in middle class both restricted and elaborated codes are found. This predominance of restricted codes in working class students was taken as an explanation for poorer performance in language based subjects.

Bernstein's code theory has later been developed into understanding how different patterns of language use by different communities influence school achievement, represented by the concepts of classification and framing. Classification refers to power relations between contexts or categories, or the degree of separation between school subjects. Framing refers to the degree of control within these categories, teachers' control of pedagogic discourse during lesson exchanges. Whilst these concepts explain the different coding orientations representing different social groups, they do not sufficiently account for the different forms of educational knowledge that are constructed. Bernstein's pedagogic device seeks to provide an explanation (Bernstein 1990). This concept incorporates three different sets of rules which represent the sites of policy enactment: distributive, re-contextualising and evaluative rules. Whilst distributive rules refer to the organisation and distribution of society's knowledge, re-contextualising rules describe its transformation into pedagogic discourse, into material suitable for transmission in lessons. Evaluative rules refer to the way in which this knowledge is further transformed into standards or criteria for assessment or examination. Whilst understanding knowledge transformation processes, Bernstein also sought to explain the characteristics of the different fields of knowledge production and transformation.

He distinguished between hierarchical and horizontal knowledge structures and horizontal and vertical discourse. Whilst horizontal discourse refers to the transfer of everyday, common-sense knowledge, vertical discourse is present in the form of coherent, explicit and systematically organised

structures. Elaborating on these two types of discourses Bernstein has suggested there are two main types of pedagogy: performance-focused and competency-focused pedagogy.

The distinction between competency- and performance focused pedagogy represents a difference in attention to people's graded individual performance or shared competencies. This difference has been termed as *'the site of pedagogic struggle between conservative and progressive positions within re-contextualising fields'* (Bernstein 1990, p. 91). Indeed, the tensions between common-sense or competency-focused and academic or performance-focused education have been described as a key issue in both sociology of education (Young 1998) and education policy (DfEE 2001). Pupils and teachers are familiar with the predefined hierarchical structures established within performance-focused education. In these structures, the recognition and re-contextualisation of legitimate texts or lesson materials requires much less effort than in competency-focused knowledge structures. The latter refers to a cultural transmission or *'a tacit transmission where showing or modelling precedes doing'* (Bernstein 1999, p. 168).

Performance-focused didactic pedagogy, the predominant educational form in Western education systems, has been described as containing teachers and students within official consensus, creating passive learners, habituating them into submission to authority:

'[...] the lecture-based passive curriculum is not simply poor pedagogical practice. It is the teaching model most compatible with promoting the dominant authority in society and with disempowering students [...]' (Freire and Shor 1987, p.10).

Such education fails to appropriately motivate students and actively engage them in their learning

[...] perhaps this is why so much formal education in classrooms fails to motivate students. The students are not included in the search, in the activity of rigour. They are told answers to memorize. Knowledge is handed to them like a corpse of information – a dead ‘body of knowledge’ – without a living connection to their reality. Hour after deadly hour and year after dull year, learning is just a chore imposed on students by the droning voice of the official syllabus’ [...] (Freire and Shor 1987, p.4)

A simple transfer of existing knowledge from teacher to pupils has been argued to stifle otherwise active learning processes that are elicited through the production, perception and acquisition of knowledge. In such lessons that are focused on the transmission of knowledge, facts are presented to learners so that they should retain and re-produce them to fulfil testing requirements (Freire and Shor 1987; Au 2008). Others have argued that such pedagogic approaches can lead to teachers preferring the use of controlling motivational strategies (Deci et al. 1982; Ryan and LaGuardia 1999; Pelletier et al. 2002). Indeed, frequent directives that are characteristic of such performance-focused pedagogic discourse can interfere with pupils’ pace of learning, de-motivate and elicit feelings of anger and anxiety (Assor et al. 2005). Such classroom talk allows little time for pupils to develop health competencies (Bernstein 1990, 1999; Morais 2002; Au 2008; Begoray et al. 2009) and has been found to be less supportive of pupils’ academic attainment (Hmelo-Silver 2004).

Competency-focused pedagogy places less emphasis on the transmission of knowledge, but focuses on universal, general processes internal to the acquirer, the development of pupils’ cognitive, linguistic, affective, and motivational competencies. Such classroom processes would lend themselves well to promoting pupils’ development of skills and competencies in relation to every day and health knowledge as this *‘entails a set of strategies which are local, segmentally organised, context specific and dependent for maximising encounters with persons and habitats’* (Bernstein 1999, p. 159). Competency is developed out of the interaction with non-culturally specific others, and the structures of social relationships

can hinder or facilitate the transmission and acquisition of competencies or tacit knowledge. Such interaction requires '*active participation on the part of the acquirer*' (Bernstein 1990, p. 90), where, as Freire and Shor (1987) noted, teachers '*don't do something to the students but with the students*' (p 46, emphasis original).

The literature cited earlier has highlighted the importance of engaging learners, and enabling them to actively participate in order to facilitate understanding and generalisation of knowledge. However, it has also become evident that such processes appear to be lacking in school-based health education lessons, although they might be appropriate for pupils to acquire and apply health knowledge that is relevant to their lives. The application of such competency-focused pedagogic practice in school contexts and its impact on learner outcomes will be reviewed in the next section.

1.12. Promoting competency-focused pedagogic discourse: Problem-Based Learning (PBL)

The application of competency-focused pedagogic approaches in educational settings is well-established by a number of group-based, self-directed learning approaches prompted within school teaching such as problem-based learning (PBL), which is an educational approach that emphasises practical experience in supporting learning (Kilpatrick 1921; Dewey 1938). PBL places the learner at the centre of the educational activity where a problem stimulates information retrieval and the application of reasoning mechanisms (Dochy et al. 2003). First introduced in medical teaching in 1958 in the McMaster University, Canada, it has been widely implemented in medical and nursing education and continues to gain popularity in other contexts (Barrows and Kelson 1995; Barrows 2000; Torp and Sage 2002) and subjects (Hmelo et al. 1995; Hmelo-Silver 2002; Torp and Sage 2002).

In broad terms PBL describes an instructional method that uses problem scenarios as contexts for students to learn problem solving skills and acquire knowledge (Albanese and Mitchell 1993; Barrows and Kelson 1995). As a flexible approach to learning that is applicable across contexts, PBL has been conceptualised in different ways (Savin-Baden 2000; Savin-Baden and Wilkie 2004). Some insist that an approach can only be termed PBL if it draws on specific components and has been integrated across the curriculum or programme of study. Others regard PBL as a technique teachers can draw on as and when required, using it as an isolated activity within lectures or tutorials. Yet others believe that PBL is developed out of an adaptation of the original PBL process based on a set of underlying principles (Barrows and Tamblyn 1980). Rather than using subjects or classifying content into modules, PBL draws on problems as central components around which the lesson content is organised. Learners decide on the knowledge that is required to resolve the problems rather than work towards answering a specific set of pre-determined questions (Savin-Baden and Wilkie 2004).

Considering PBL within this latter perspective, a problem in a school context might ask pupils to make recommendations about how the school's meal service could be improved. The problem scenario encourages pupils to identify relevant facts they need to consider such as pricing, costs, payment and serving processes, nutritional aspects, menu choices and likely uptake. This leads to the generation of hypotheses and the identification of knowledge deficiencies. Next, pupils independently search for and acquire knowledge that is later applied and abstracted to resolve the initial problem presented in the scenario. Whilst gathering information from the internet, the school library and various individuals about money and nutrition, pupils develop and apply transferable skills through mathematical problem-solving and budgeting, communication and negotiation. The final component of PBL, evaluation and reflection, facilitates further identification of facts and generation of hypotheses. For example, pupils might consider the influence of school meals on health (Barrows 2000; Torp and Sage 2002; Hmelo-Silver 2004).

Although the evidence base is limited, it has been suggested that PBL could have a positive effect on younger learners such as pre-school children (Neal Boyce et al. 1997; Zumbach et al. 2004) or primary and middle-school pupils (Fogarty 1997). A comparison of student groups receiving PBL teaching, traditional lecture-based and a combination of traditional and PBL teaching has found that understanding and knowledge retention was enhanced through PBL (Dods 1997), whilst De Corte, Verschaffel et al. (1998) have found that PBL students performed better in mathematical problem solving and recall tests.

In order to draw out key components of PBL approaches with school aged learners and their impact, a literature review has been conducted. The search strategy as well as a table with details about the studies reviewed can be found in Appendix 2. The papers included in the review have suggested that PBL-based approaches to teaching school-aged learners can have a positive impact on their personal and academic development (Simons and Klein 2007). PBL has been found to promote 10th graders' intrinsic goal orientation, critical thinking, self-regulation, motivation and collaborative learning (Sungur and Tekkaya 2006), improve 4th graders' knowledge about the lesson topic and problem-solving abilities and promote intrinsic motivation (Zumbach et al. 2004). PBL has also been found to enhance 5th – 7th graders' understanding (Azer 2009) and to increased self-confidence (Wang et al. 2001). It has also been found to support 8th graders' interest and motivation to engage in independent work, as well as overall academic performance and self-efficacy (Cerezo 2004).

Comparing the PBL-based pedagogic approaches reported in the six papers to the key components of a traditional PBL approach described by Hmelo-Silver (2004), some variations in the extent to which PBL was implemented with school aged learners have been identified. All six studies have used group work and group discussions to identify learning goals on the basis of a problem scenario, independent task- oriented learning or information retrieval, the application of that new knowledge to the problem-scenario and the presence of one or more facilitators. Three of the papers reviewed have

described the use of self- or peer evaluation or self-reflection (Wang et al. 2001; Zumbach et al. 2004; Sungur et al. 2006). Two papers have explicitly referred to students' active generation of hypotheses as part of the PBL process (Cerezo 2004; Sungur et al. 2006). However, all approaches appeared to have had a general orientation towards a pedagogic practice that actively involves learners in the educational activity, allowed them to take ownership of their work, and indeed help them develop individual agency within their own learning process. The findings from this literature review have highlighted the potential of competency-focused pedagogy, such as the application of PBL-based elements to enhance learners' personal and social development (Jerzembek and Murphy 2012). It also appears that such competency-focused pedagogic approaches may have the potential to enhance school-based health education by promoting goal setting, self-monitoring and self-reactive influences (Bandura 2005). Such self-regulatory behaviours might contribute to generating sustainable behaviour change.

This suggestion might offer a helpful response to the aforementioned key barriers to health education effectiveness (McCuaig et al. 2012). However, it has also become evident that the implementation of such competency-focused pedagogic approaches in practice is limited by a number of policy challenges, in particular curricular pressures characteristic of Western Education systems (Whitty et al. 1994b; Bernstein 1999; Au 2008). It is therefore important to examine implementation processes in detail to identify influences that can promote or hinder the integration of such pedagogic approaches in the implementation of school-based health education interventions or related policies.

1.13. Chapter summary

The purpose of this chapter was to set out the rationale for this study. Health behaviours have a significant impact on the development of chronic diseases in later life. Young people's health behaviours are particularly important in influencing these trajectories and the low proportion of young people engaging in health behaviours continues to be of concern. Young people from disadvantaged backgrounds have been found to be more likely to engage in high risk behaviours, and such patterns might continue into adulthood, influenced by a multitude of determinants throughout the life course. Schools are recognised as the best setting for health behaviour interventions that seek to disrupt such trajectories, and this has been reflected in several policy developments, such as the WHO's 1986 Ottawa Charter. Drawing on its principles, a Health Promoting Schools (HPS) approach has been developed that encourages multi-level interventions that incorporate curricular health education, organisational changes and school ethos as well as partnerships and community links.

Evaluations of HPS approaches have identified that they were more effective in increasing health knowledge than in changing health behaviours and outcomes. Lesson processes used to convey health knowledge have been identified as one of the key barriers. It has been recognised that classroom practice strongly reflects curricular priorities as well as teachers' reluctance or lack of skills to use pedagogic approaches that are appropriate for teaching health knowledge and promoting the development of relevant skills. The literature reviewed suggests that health education policies or intervention protocols may be limited. They seem to lack awareness of the importance of pedagogy in eliciting certain learning processes and skills that would support pupils' understanding and application of health knowledge. In order to enhance school-based health promotion effectiveness it has been suggested to change pedagogic practice in health education lessons.

In order to examine the role of lesson processes in more detail, the purpose of this chapter was also to focus on intrapersonal level influences on health behaviours and explain how these may be shaped by health education lesson

processes. People's attitudes and subjective norms, as well as their levels of self-efficacy have been identified as important determinants of health behaviour intentions. It has been found that the links between intentions and behaviours can be strengthened by attending to individual agency, suggesting that self-regulatory behaviours are more likely to achieve a change in behaviours. The social cognitive concept of self-regulation incorporates goal setting, planning and self-monitoring, and interventions based on this concept have been found to be effective in generating sustainable health behaviour change in medical and public health contexts with adults. Self-regulation interventions with school aged learners have also been found to be effective in achieving a change in behaviours and an improvement in health outcomes, such as a reduced BMI, whilst enhancing classroom experience and academic attainment. These arguments suggest that self-regulatory behaviours may have the potential to improve the effectiveness of health education lessons in generating health behaviour change.

In order to understand how lesson processes might incorporate the encouragement of such self-regulatory behaviours, it is important to examine the key distinction between competency-focused and performance-focused pedagogy. Performance-focused pedagogy is dominated by a transmission of facts in teacher-dominated lessons focused on knowledge acquisition and reproduction upon examination. Competency-focused pedagogy encourages pupils' active participation in, engagement with and application of the lesson content as well as relevant skill development. In order to examine how self-regulation components might be operationalized through such competency-focused classroom practice, one approach has been examined in more detail: problem-based learning and its impact on school aged learners. Conceptual links between PBL-based approaches and self-regulation have been identified, suggesting that competency-focused pedagogic approaches might promote self-regulatory behaviours. Therefore, the application of such lesson processes to school-based health education interventions may hold potential for enhancing their effectiveness in achieving health behaviour changes. Whilst this might address one

important limitation identified in evaluations of school-based health education interventions, the inadequacy of classroom processes, the implementation of such competency-focused pedagogic approaches may be limited by contextual influences. It is therefore important to gain a detailed understanding of facilitators and barriers to the effective implementation of interventions or policies in schools.

CHAPTER 2 Implementation processes and classroom practice

The purpose of this chapter is to examine the processes associated with the implementation of school based health promotion or health education interventions and policies in more detail. Evaluations of interventions have identified some key barriers to their implementation, such as competing policy pressures and related organisational processes. However, there are a number of influences that determine the extent to which policies change practice as intended. After reviewing models of school policy implementation describing processes by which policy manifests itself in practice, the chapter follows one specific multilevel approach to understanding school policy implementation and considers each level of influence in more detail.

2.1. Implementation of school based health promotion interventions

The incomplete implementation of school-based health promotion interventions limits their effectiveness in changing pupils' health behaviours and outcomes (Allensworth and Kolbe 1987; WHO 1997b; Marshall et al. 2000; Deschesnes et al. 2003). Such arguments need to be considered in the context of the research approaches taken to generate them. Whilst research designs employed to evaluate the processes and the outcomes of school based health promotion interventions varied, systematic reviews and meta-analyses from controlled trials have generated important insights (Connelly et al. 2007; Begoray et al. 2009; Dobbins et al. 2009; Harris et al. 2009). Indeed, the most rigorous study design to evaluate the effectiveness of an intervention has been argued to be a randomised controlled trial (RCT) as it minimises the potential for systematic bias through external factors (Friedli and King 1998). RCTs have traditionally been conducted to assess the effectiveness of pharmaceuticals, and there is now a need to focus on how interventions with a greater level of complexity can be rigorously evaluated.

These might be policy-, health service- or public health improvement interventions (Mackenzie et al. 2010 ; Flay 1986; Buchenwald 1997; Stephenson and Imrie 1998). With pharmaceuticals, the quality and process control takes place during the development and production of the pharmaceuticals prior to their implementation within effectiveness trials. Policy interventions need to incorporate these control processes in their implementation phase. Therefore the quality of the implementation determines how effective these interventions are, requiring an adequate approach to evaluation (Flay 1986; Bond et al. 2010; Mackenzie et al. 2010). Part of this is a need for more clarity. Campbell et al. (2000) have argued that only a minority of experimental studies describe interventions in detail and that inconsistent terminology limits the potential of ‘*valid contributions to science*’ (page 43). To address this limitation it has been suggested specifying explicit theoretical models of a causal pathway to behaviour change, and adequately defining moderating variables that might facilitate the generalisability of interventions (Michie et al. 2009). Therefore, a framework for evaluating the implementation of complex interventions should include: 1) the content or elements of the intervention techniques, 2) characteristics of those delivering the interventions; 3) characteristics of the recipients; 4) characteristics of the setting; 5) the mode of delivery; 6) the intensity or contact time; 7) the duration of the intervention; 8) and adherence to delivery protocols (Michie et al. 2009).

This framework also highlights the importance of focussing on intervention processes (Pawson and Tilley 1997; Craig et al. 2008). Attending to processes seeks to identify the mechanisms for change triggered by a programme, the social and cultural conditions that are necessary for change, and how these conditions are distributed within and between programme contexts to understand the ability of programmes ‘*to break into existing chains of resources and reasoning which led to the problem* (page 75)’ (Pawson and Tilley 1997). It is evident that the implementation of school-based health promotion interventions requires a careful consideration of contextual influences in order to achieve the desired effect. After briefly introducing the policy implementation literature, the next section examines

models of school policy implementation and the extent to which they take account of such contextual influences.

2.2. Models of school policy implementation

Policy has been described as '*outcomes of contested preferences expressed within the state and civil society, some of which go forward as practical programmes involving the allocation or reallocation of resources*' (p.17) (Fitz et al. 2006), although it has previously been considered as a reactive attempt to alleviate a perceived problem or threat to social order and wellbeing (Torres 1989). Drawing together findings from Pressman and Wildavsky's (1974) work in the US, and Barrett and Fudge's (1981) findings from research in the UK (Policy in Action, 1981), Schofield (2001) has noted that policy research is largely concerned with success or failure of policy implementation; seeking to explain why policy is or is not implemented as intended (Buck et al. 1993; Matland 1995; Ryan 1995).

O'Toole (1986) has identified three hundred variables that potentially influence the successful implementation of policy. Barriers to effective implementation include a lack of clear policy objectives, a multiplicity of actors and agencies, differences in inter and intra-organisational values in relation to the policy, and relative autonomies among implementing agents (Pressman and Wildavsky 1974; Sabatier 1999). They also include decision making, communication, bargaining, negotiation and conflict (Schofield 2001). O'Toole's (1986) facilitators for effective policy implementation largely fall into four main groups of influence: policy and policy processes (Pressman and Wildavsky 1974; Mazmanien and Sabatier 1981), organisations and their characteristics or cultures (Rainey and Steinbauer 1999), agents with certain preferences or leadership abilities and styles (Lipsky 1980), and the wider implementation context such as political and economic conditions as well as public opinion (Mazmanien and Sabatier 1981).

Policy implementation processes have initially been considered as top-down, hierarchically occurring administrative and centrally controlled processes (Barrett 2004). For example, Mazmanien and Sabatier (1981) have conceptualised policy implementation as a predominantly administrative process seeing local actors as barriers to successful implementation that need to be controlled: *'The starting point is the authoritative decision; as the name implies, centrally located actors are seen as most relevant to producing the desired effects'* (Mazmanien and Sabatier 1981, p. 145). The linearity of policy implementation processes implied by these top-down theories focuses on central control as key determinant, whilst it pays less attention to the interaction between agents and their context. Such a hierarchical perspective may limit approaches towards understanding bureaucratic discretion and motivation. Therefore, more recent arguments suggest a focus on a *'policy-action dialectic'* that places more emphasis on *'power-interest structures and relationships between participating actors and agencies and the nature of interactions taking place in the policy implementation process'* (Barrett 2004, p. 253).

Although much of previous policy research has attended to policy making processes, the role of implementers and how they shape policy has largely been overlooked (Hill 2003). Where it has been considered, it appears that the role of individual agents in policy implementation processes has not always been portrayed in a constructive way. For example, rational choice theory assumes that people's decisions are shaped by their personal interest and an optimization of utility, and that choice is at the centre of a person's life (Moessinger 2000). However, it fails to consider the complex sense-making processes that happen whilst actors understand and implement policies in their contexts. In addition, it places responsibility for the success or failure of this policy with the individual agent. It is therefore less helpful for understanding processes that may generate recommendations for change (Spillane et al. 2002).

Instead, theories developed on the basis of Lipsky's (1980) concept of street level bureaucrats seek to explain why local actors' policy implementation

differs from policy intentions, examining the disjuncture between policy objectives and actual implementation (Hill and Hupe 2002). According to this perspective, implementers consider which strategies are most appropriate for shaping practice according to policy requirements (Yanow 1996; Cohen et al. 1998; Spillane 1998; Lin 2000). Such sense-making processes shape the policy that *'ultimately gets delivered to clients'*. This means that simply by *'doing their jobs, street level bureaucrats teachers, social workers and police officers, 'make' the policy citizens are experiencing.* (pg. 266 - 272) (Lipsky 1980; Yanow 1996; Lin 2000; Hill 2003). Therefore, the concept of street level bureaucrats considers policy implementation as something taking place at two levels: policy is generated centrally by the government at the macro-implementation level and local actors or organisations at the micro-implementation level react to these policies and develop their own programmes (Berman 1978; Lipsky 1978; Hjern 1981). Such a consideration of policy implementation processes from a bottom-up perspective has been noted to gain increasing attention as it has the potential to explain the growing complexity of contexts in which policies are developed and implemented (Buse 2005; Walt 2008).

Taking account of this complexity, Walt and Gilson's (1994) policy triangle framework suggests that the content of policy, actors, context and processes interact to influence policy implementation (Walt 2008). Elaborating on these interactions, Spillane's cognitive framework of school policy implementation suggests that implementation occurs at three levels: First, individual cognition is influenced by the implementing agents' beliefs, values and emotions. Second, situated cognition refers to the situational and social influences on individual sense-making. Third, individual sense-making shapes the way in which practice changes in response to policy (Spillane et al. 2002).

Another approach to explaining school policy implementation processes has been taken by Abbott et al. (2011), who have drawn upon Bernstein's (1996) pedagogic device. Its rules influence the development of policy as well as its implementation. They explain, for example, how the context of

school policy enactment can lead to *'the selective reproduction of educational discourse'* (Bernstein 1990, p. 191), as it highlights the interaction between policies, policymakers and influences on implementers. The distinction between distributive, re-contextualising and evaluative rules is considered as very permeable where actors that are internal and external to the system work with policies (Bernstein 1990, 1996; Coburn 2001; Hill 2001; Spillane 2002; Spillane et al. 2002).

The pedagogic device has originally been applied to explaining how educational knowledge is constructed and re-constructed. Whilst it may be useful for generating a wider understanding of school policy implementation, this focus aligns less well to lesson processes and intrapersonal determinants of health behaviours, the focus of this study. Other frameworks aimed at examining policy implementation, such as the 'stages heuristic framework' (Lasswell 1956) have been found to be useful for considering policy processes in their entirety. However, their linearity does not adequately generate an understanding of the reciprocal interaction between agents and their contexts (Spillane et al. 2002; Greenalgh et al. 2004).

These arguments suggest that Spillane's (2002) framework presents the most comprehensive approach to examining policy implementation in the context of this study. It is specifically aimed at describing school policy implementation processes and its determinants offer a wider, more systematic and explicit insight into the different levels of influence that explain the pathway from policy implementation to lesson processes. In order to understand the complexity of school policy implementation processes, it is necessary to examine how the policy context, the widest level of influence on policy implementation described by Spillane (2002), re-emerges in classroom practice. Therefore, the next section considers in detail how the policy context, largely represented by graded exam performance, might influence lesson processes.

2.3. Manifestation of educational policy context in classroom practice and situated sense-making

The publication of schools' performance in league tables has important implications for the behaviour of schools (West 2010). The business agenda that shaped New Labour's educational policy led to the creation of a system where schools are encouraged to compete for privileges in an educational market, leading to a strive towards grades and funding by '*turning pupils into economically measurable commodities*' (Mulderrig 2003, p.4). As a result, resource distribution within schools is skewed towards grades, with the National Audit Office (NAO 2008) reporting that over 60% of teaching time is spent preparing for tests in key stage 2, whilst pupils expected to achieve GCSE D grades receive additional support (NAO 2003; Wilson et al. 2006). As a result, any activities or school subjects that are considered as not directly supporting exam performance in core curriculum subjects are seen as competing for valuable school time and limited resources (Ranson 2003; Governali et al. 2005). Such a focus on performance also determines how strongly certain types of knowledge are valued by teachers and pupils (Whitty et al. 1994a; Bernstein 1999; Simpson and Freeman 2004).

As a result, such a policy context has generated a strong belief in measurable and quantifiable data representing school performance (Lyotard 1984; Whitty and Menter 1989; Broadfoot 2001). This belief reflects a focus on impersonal and universalistic rationality, creating a context in which schools, teachers and pupils compete for social status (Mansell 2005). Garratt and Piper (2008) have criticized this focus on the 'end product', rather than the processes of pedagogy (EPPI 2005). They have argued that this creates a performance culture which functions as '*a powerful piece of social technology, informed by particular ideological assumptions which privilege competition over cooperation and outcomes over process*' (Garratt and Piper 2008, p. 485).

Such a culture filters through to classroom processes where: '*the functional role of education has penetrated both content and form of schooling*' (Mulderrig 2003, p. 4). This happens though a '*focus on teaching on what is*

assessed and teaching methods on transmission of this content, [...] whilst coaching pupils in how to answer questions rather than using and applying their understanding more widely' (Harlen 2007, p. 21). It has previously been noted that this performance-focused culture produces a pedagogic discourse aimed at satisfying factual knowledge-based exams (Bernstein 1996; Newton et al. 2001; Wong and Apple 2003; Au 2008). Indeed, it focuses on the transmission of facts using teacher-centred didactic pedagogy that communicates hierarchically organised knowledge in systematic and explicit ways (Bernstein 1996; Spillane et al. 2002; Au 2008). Such test-focused teaching encourages narrow and shallow learning and question spotting (Brooks and Tough 2006), approaches that undermine the potential for pupils to develop an understanding of the actual subject itself (Harlen 2007). This view has been found to reflect pupil perceptions, suggesting that *'some pupils feel that their learning is almost entirely focused on achieving high GCSE grades'* (West 2010, p. 28).

It has been argued that such practice *'has distorted the education of some children'* (HCCSFC 2008,p. 3), that is *'in many ways wholly contrary to effective inclusive education'* (Garratt and Piper 2008, p. 486). Such pedagogic practice has been noted to also reinforce inequalities in attainment (Au 2008), leaving learners poorly prepared for further education and employment (HCCSFC 2008). Such classroom practice may therefore be undermining the intentions of the Welsh Government's PSE framework, encouraging pupils' engagement and acquisition of skills relevant to their health. The proposed cross-curricular integration of the five PSE themes, such as the integration of health and wellbeing into biology, seems equally limited by such a performance focus. Basil Bernstein's work offers an understanding of these challenges, which are inherent in the relationship between themes and curriculum subjects: the concepts of classification and framing of educational knowledge (Bernstein 1977, 1990, 1996, 1999).

Classification refers to the boundaries between different school subjects, between teachers and pupils, between different pupils and between schools and communities. A strong classification between subjects is characterised

by a strong insulation between the contents or themes discussed within the different subjects, whilst the distinction between weakly classified subjects tends to be blurred (Bernstein 1971). Such a strong classification inhibits cross-curricular integration (Whitty 2002). Framing describes teachers' control of pedagogic discourse during the classroom exchange, the extent to which there are boundaries between what may and may not be discussed within classroom exchanges. Strong framing is characterised by teachers' use of closed questioning, limiting the opportunities for pupils to contribute to the lessons. As a result, *'the acquirer has little control over the selection, organisation and pacing of the transmission'* (Bernstein 1977, p. 12). Such lessons may not permit pupils to apply any of the knowledge to their own ideas and understanding (Whitty 2002). However, strong framing and strong classification has been noted to be characteristic of conventional academic subjects and to be reinforced by the demands of the subject-based National Curriculum (Rowe 1993; Whitty et al. 1994a, 1994b).

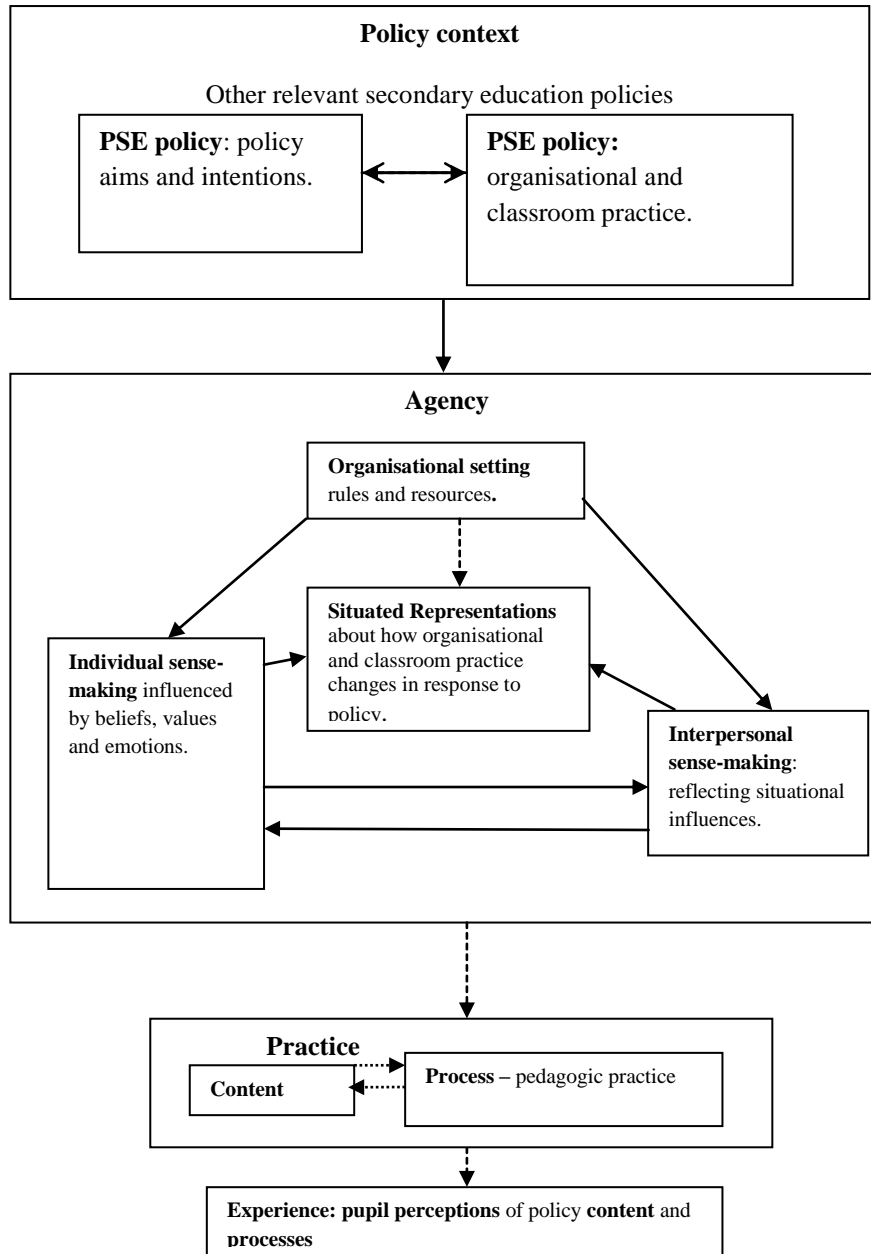
A strong classification or separation among school subjects can also be evident in physical classroom characteristics which can communicate the presence of a subject (Bernstein 1971). Displays of artefacts, posters, symbols, and subject-related pupil work in classrooms and corridors signify to pupils that they are now entering an area dominated by a particular specialism. This is associated with certain expectations about performance or about acceptable and appropriate ways of responding within the lesson. For example, an Arts classroom would be clearly identifiable by the presence of aprons, art materials and pupil work. Therefore physical setting characteristics constitute an important contextual element influencing pupils' experiences of and responses to lessons (Bernstein 1971, 1996).

One important part of physical classroom characteristics is the way in which tables and chairs are arranged. Seating arrangements in classrooms have an important influence on lesson processes. If they facilitate face to face contact among pupils they have the potential to encourage social interaction (Steinzor 1950). It has been found that pupils seated in semi-circle classroom arrangements asked more questions during lessons than

compared to traditional row-and-column classroom layouts (Marx et al. 2000). However, such discussion-focused classroom layouts may be more appropriate for some lessons than for others. A review aimed at identifying the links between seating arrangements and academic and behavioural outcomes has concluded that seating arrangements should correspond to the nature of the task or the lesson. Pupils have been found to behave more appropriately during lessons that require individual input if they were seated in rows, and that such arrangements are particularly beneficial for dealing with disruptive students. As the majority of lessons within the secondary curriculum require pupils to complete tasks individually it may not be surprising to find that schools usually prefer a traditional row-and-column classroom layout (Wannarka and Ruhl 2008).

Having demonstrated how policy may re-emerge in the different elements of classroom practice, the following section aims to clarify in detail the multilevel influences that shape the pathway from policy to practice, as illustrated in Figure 1. The focus of this case study is to examine processes influencing the implementation of the Welsh Government's PSE framework in PSE lessons. The policy context, which comprises the PSE framework and other related policies, influences implementers' situated representations of PSE policy. These are also shaped by organisational, interpersonal and intra-personal influences. These situated representations of policy are then transformed into practice. Of specific interest are the links between intentions of the policy, and the processes aimed at realising these intentions at the policy-, agency-, and practice levels. Each of these levels of influence will be discussed in the following section.

Figure 1 Research design: Key aspects this study will cover and the relationships between them.



Drawn with reference to McLeroy et al. (1988) and Spillane et al. (2002).

2.4. Influences on situated sense-making

2.4.1. Policy level influences on situated sense-making

The literature cited earlier has made it clear that policies and their context have an important influence on how people make sense and enact interventions or changes in practice. Policies that appear inconsistent or ambiguous may increase the level of discretion implementers assume to have within their decision-making about whether and how they put policy into practice (Pressman and Wildavsky 1974; Weatherly and Lipsky 1977; Porter et al. 1988). This discretion may be an opportunity to protect existing ideas and concepts, leading to unwanted analogies between reforms and existing structures or processes (Fullan 2001), which can lead to superficial implementation and fail to achieve the desired outcome (Gentner et al. 1993).

To prevent such interpretations or analogies, policies need to be very clear about the extent and type of change required. They also need to clarify the rationale for making the change, whether it addresses or resolves a tangible problem and how the policy intends to achieve this change (Mazmanien and Sabatier 1981; Cohen 1990; Brown and Campione 1996). New policies that are perceived as consistent with and an enhancement of existing policy and practice are more likely to be implemented successfully. Such consistency has been described as creating '*anchors and bridges*' for enhancing existing practice. This can be achieved if policymakers clarify links between the old and the new, if they provide clear guidance about how policy works in practice, and if these policies are associated with clear objectives (Matland 1995). The predominant presentation of policy ideas, goals or objectives as one-sentenced statements has been described as unhelpful in communicating underlying ideas and principles adequately (Spillane et al. 2002). Clear objectives, on the other hand, reduce ambiguity and promote a shared understanding about how these are to be achieved. A clear objective has a specific purpose, an expected level of performance and an explicit outcome.

Objectives should also be reasonably challenging as this has been linked to higher levels of performance (Doran 1981).

If new policies match existing schemata held by teachers, they elicit sense-making processes that are in line with intentions of the policy thus more likely to be implemented successfully (Norman 1988; White and Frederiksen 1998). To provide clarity, policy guidance should enable school staff to develop form- and function based understanding: an insight into how new practice according to policy looks like and how it is likely to achieve intended outcomes. An example would be the Personal and Social Education (PSE) and Work Related Education (WRE) in the Basic Curriculum. It makes clear reference to the 2002 Education Act, what changes it intends to bring about and how the policy can be implemented in practice. The guidance attempts not to be over prescriptive but offers some brief suggestions, where for instance the delivery of these subjects could be built into schools' on-going provision (Star and Griesemer 1989). Policies that appear disconnected from existing practice, that seem to be an *'imposition of one worlds' vision on the rest*, are less likely to be implemented successfully (Star and Griesemer 1989, p. 10).

People reading policy ideas initially develop external representations of decisions made and the rationale for them. Only once there has been an active interpretation following interaction with the policy, those external representations will have fully developed their meaning. Therefore, presenting policy ideas as extended essays highlighting underlying reform ideas, or scenarios and vignettes that illustrate how the policy is to be enacted in practice might contribute to greater clarity and facilitate sense-making processes that are more in line with policy intentions (Spillane et al. 2002). Clarity of policy documents is also determined by the language used in policy documents (Conger 1991; Pfeffer 1992). Professional language used among teachers is characterised by a set of shared meanings and understandings that represent practice (Lortie 1975; Lave and Wenger 1991). By failing to take account of local teacher knowledge during policy development to understand what happens 'on the ground' in classrooms

policy documents are not always consistent with the language used among teachers (Smit 2005). Such discrepancies could introduce ambiguity, where implementers' interpretation might be very different from what is intended by the policy (Hill 2001).

Discrepancies between policy and practice language may also arise from differences in expertise between policy makers and implementers, and associated variations in priorities (McCuaig et al. 2012). Whilst health professionals might design health promotion programmes, education professionals are expected to implement them. The terminology and language used by health professionals to describe the content of programmes and the processes of implementation may not always be in line with the language predominantly used by education professionals: the *'language that emanates from the health sector is not central to the running of schools, or a part of teachers' thinking'* (Ridge et al. 2002, p.28). Clarity of policy texts may be further limited by discursive features. Policy texts have the potential to represent social actors as either included or excluded. Where actors were presented as subjects of passive clauses, the action is deemed to be performed by a passive, invisible agent and the actor assumes the role of those who are affected by the process (Fairclough 2003). This objectification of text can lead to implementers perceiving themselves as disengaged (Smith 2008).

Other challenges at policy level are related to differences in foci of new policies and their policy context. School-based health education is usually informed by a particular health concern or aimed at developing specific health competencies (Whitehead 2005; Inchley et al. 2007). To teachers this might appear decontextualized, as their understanding of promoting health might relate to the development of generic health skills and knowledge (Jourdan et al. 2010). These differences might contribute to the low status school-based health education, or PSE/PSHE hold in comparison to the core curriculum. Indeed, the marginalisation of health education due to a focus on core subjects and associated resource and staff allocation was has been identified in Australian schools (McCuaig et al. 2012), as much as in the UK

(Formby and Wolstenholme 2012). However, where such subjects are able to develop attributes of school subjects in terms of status, time and resources, their presence within the school becomes stronger (Goodson 1983; Whitty et al. 1994b).

It has previously been noted that the predominant focus on examination grades shapes a performance-focused pedagogic practice that is not necessarily helpful for pupils' development of important skills or competencies (Bernstein 1971; Freire 1986). Assessment procedures also influence other elements of practice, such as the status of a subject. McCuaig et al (2012) have argued that in order to increase the status of health education, it is necessary to legitimise such subjects through the addition of characteristics similar to core school curriculum subjects, in particular through assessment or examination procedures. Evaluation refers to one of three interrelated message systems, alongside curriculum and teaching approaches, which need to be aligned for schooling to be effective (Bernstein 1990; Penney et al. 2009). As assessment regimes designate the priorities for policy implementation processes, they can be very influential on teacher perceptions of such subjects (Bernstein 1996; Singh 2002; Abbott et al. 2011). Such characteristics can influence the clarity of educational policies, and are likely to shape sense-making processes at the organisational level. These will be considered in the next section.

2.4.2. Re-contextualisation of policy at the organisational level

Social dynamics in organisations are an important influence on people's sense making of educational policy. They determine the development of power relationships within informal networks or those that are formally imposed through hierarchical organisational structures (Kogan 1975; Ball 1990; Champagne et al. 1991; Bowe et al. 1992; Spillane 2000; Spillane et al. 2002; Rogers 2003; Greenhalgh et al. 2004; Coburn 2006; Hodgson and Spours 2006). It has been suggested that ways in which responsibilities and specialisation within schools are mediated can play an important role in the

implementation of competency-focused pedagogic discourse (Bernstein 1999; Rowe 1993; Whitty 2002).

Indeed, if a policy assigns certain responsibilities to people within an organisational hierarchy, they can use their influence to hinder or facilitate implementation (Barrett 2004). A successful implementation of policy becomes more likely if individuals who are in support of a policy are strategically placed and outnumber opponents within the organisation (Spillane et al. 2002). If the required changes are in line with the interests of these individuals their endorsement of the policy can play an important role in facilitating the implementation (Schon 1963; Meyer and Goes 1988; Backer and Rogers 1998; Spillane 2002; Rogers 2003; Greenhalgh et al. 2004; Salvesen et al. 2008). For example, head teachers can have a significant influence over the success of implementation processes by shaping an organisational culture that is in support of the policy (Kasili and Poskiparta 2004; Watkins et al. 2008).

Organisational culture has been defined as a set of prevailing beliefs and values that interact with organizational structures and systems to produce norms for behaviours (Reason 1998; Watkins et al. 2008). This concept draws on earlier views of culture as describing the way in which things get done in any particular organisation (Deal and Kennedy 1982). Schein (1990) has defined organisational culture as something that permeates all areas of an organisation's life. It can be examined in individual's responses to a set of external and internal tasks that encompass the mission and function of the organisation in the context of its environments, its goals and the means to achieve these, the criteria for measuring goal achievement and approaches to dealing with the failure of achieving goals. Gomez, Marcoulides and Heck (2012) have defined organisational culture in schools as encompassing beliefs and attitudes about academic and organizational expectations as well as teaching approaches (Opdenakker and Van Damme 2007; Kyriakides et al. 2010). Their study aimed at examining the impact of culture in secondary schools on achievement has highlighted the importance of motivated staff and strong leadership alongside the implementation of organisational

arrangements or changes to curricular programmes (Erb 2006; Yecke 2006; Whitley et al. 2007; Viadero 2008; Weiss 2008). Whilst the guidance for implementing HPS approaches has acknowledged the need for commitment and support from leadership in schools (IUHPE 2009), the importance of their role in shaping organisational culture that is supportive of a whole school approach to health promotion does not appear to have been recognised.

In practice, however, it appears that key individuals such as head teachers are often those opposing health promotion interventions. For instance, an evaluation of a national programme aimed at promoting regular physical activity in Australian primary schools found that its implementation was impeded by a number of barriers, such as curricular pressures that prioritized other subjects, limitations in teachers' experience, a lack of time and adequate facilities, as well as resistance by stakeholders. Uncertainty and reluctance of head teachers emerged to be the most important barrier to policy implementation (Abbott et al. 2011). This reluctance appears to be due to the pressures of a performance-focused policy context: *'These trends... leave head teachers to work out their own salvation within the bounds of their own schools, in a continuous quest to find a marriage of convenience between dutiful compliance'* (MacBeath 2008, p.147).

These arguments provide an example of policy influence on intra-organisational determinants of policy implementation processes. Policy priorities are also evident in segmentation within schools. For instance, some schools dissociate their formal structuring such as administration and management from the core activity of what the school is about, such as teaching and supporting pupils (Weick 1976; Meyer and Roan 1977). Such 'egg-carton' structures can isolate individuals' work (Spillane et al. 2002). According to Hayes et al. (2006), such dynamics evolve out of mismatches, the 'operation of 'silos' in schools where goals and priorities vary between different elements of the system. It has been found that such a structure emerged as a key barrier to schools adopting innovative pedagogic approaches as it inhibited intra-organisational networking among teachers to

share expertise and develop practice (Pedder and MacBeath 2008). Indeed, it could pose a barrier to collaboration, social sense-making and implementers' consideration of alternative viewpoints of policy orders (Lortie 1975; Bryk et al. 1993; Louis and Kruse 1995; Spillane and Zeuli 1999). However, non-beaurocratic structures as created in bottom-up approaches to policy implementation could support such social sense-making (Hjern 1981; Kegler et al. 1998; Rainey and Steinbauer 1999; Wolf et al. 2000; Deschesnes et al. 2003).

Segmentation can also occur at an inter-organisational level, for example between schools, local authorities and other supporting agencies. Implementers are often linked to multiple organisational contexts simultaneously. This is particularly true for schools where teachers and administrators are linked to the local authorities that support the schools, which in turn are embedded within national organisational frameworks that support the authorities (McLaughlin and Talbert 1993). Segmentation among organisations may lead to contradictory understandings and implementation instructions given to schools (Spillane 1998). It may diffuse responsibility across different institutions or hierarchies of organisations where policies fail to specify roles in and the logistics of implementation processes, resulting in discrepancies in inter-organisational channels, coordination, control and command systems (O'Toole 1986; Schofield 2001). However, coordination and supportive frameworks provided by local authority- and school leaders can be an important facilitator for teachers' interaction with colleagues to share knowledge about practice (Cohen et al. 1998; Spillane et al. 2002). These arguments have made it clear that the policy context can influence sense-making processes at an organisational level, which are shaped by social dynamics, organisational culture and segmentation between and within organisations. The next section considers the extent to which these organisational level determinants might influence individuals' sense-making.

2.4.3. Re-contextualisation of policy at the social level

Sense-making does not occur in isolation, but is a socially mediated process, supported through social interactions and mutual learning (Brown and Campione 1996). If policy messages are ambiguous, a social exchange of tacit beliefs about how to enact this new policy helps actors make sense (Sachs 1995). The social context of sense-making includes social, material, intellectual and temporal as well as historical and cultural aspects, all of which have an effect how sense-making in a school-setting occurs, and how policy is implemented in classroom practice. Social actors' engagement with policy documents has been described as a natural process of creating and sharing information in order to generate mutual understanding, which involves the interpretation of situations and a shift in the meanings of policy texts as they evolve (Weick 1976; Giddens 1984; Ball 1994; Spillane et al. 2002; Rogers 2003). The influence of social contextual conditions on individuals' sense making processes mainly occurs through attitude change and role modelling, and happens most effectively between people of similar educational and professional background (Rogers 2003).

Collaboration with others creates enactment zones: the social context in which teachers make sense of policy documents and implement them. Wide enactment zones are those that have been socially created and that are associated with a network of professionals and resources within and outside the school. Individualistic enactment zones, on the other hand, are created if teachers do not collaborate with colleagues or with outside agencies in order to exchange ideas or tacit knowledge. Teachers located in such individualistic or private enactment zones have been found to predominantly implement surface-level, less fundamental changes into practice (Spillane and Zeuli 1999). Such a lack of interdisciplinary collaboration can be associated with teachers' reluctance to engage with other professionals, or the preference of learning from people with similar socioeconomic, educational, professional and cultural backgrounds (Fennell and Warnecke 1988; West et al. 1999; Fitzgerald et al. 2002). This can present a barrier to the creation of such wider enactment zones and effective implementation (Spratt et al. 2006).

Socially created enactment zones that spread beyond the classroom and involve in-depth deliberations and collaboration with professional networks or outside agencies (Spillane 1998; Burch and Coburn 1999) or partnership working between schools, families and the community (Leviton et al. 2000), have been associated with a more successful implementation of policy (Spillane and Zeuli 1999). However, the mere provision of opportunities to collaborate is insufficient. Leadership is required to influence selection criteria during staff recruitment, the design of job roles and the facilitation of continuing professional development to enhance collaboration (Coburn and Russell 2008). Despite the importance of social sense-making, Hill (2001) has found that it can, in some instances, lead to a misinterpretation of documents. For example this could be a result of heuristics used within professional contexts: the assignment of familiar, conventional terms to the new information in order to understand it better. Particularly if considerable changes to practice are required, such socially created heuristics can pose a barrier to the effective implementation of policy.

Whilst being clear of the importance of social determinants on policy sense making, such as the types of enactment zones teachers create, it is also necessary to consider that these social dynamics are shaped by people's individual values and experiences. The next section is concerned with these individual characteristics, and ways in which they determine policy sense-making and consequent perceptions about of practice.

2.4.4. Intrapersonal influences on policy sense-making: professional self-identity

A person's professional self-concept describes the way in which he or she evaluates his or her own abilities, goals and traits in relation to others and the environment (Rosenberg 1965; Rosenberg and Simmons 1971; Friedman and Farber 1992; Beijaard et al. 2004). Others have defined it as organized representations of people's theories, attitudes, and beliefs about themselves and their own abilities (McCormick and Pressley 1997). In other studies professional identity has been described as concepts and

expectations of other people including societal conceptions of what a teacher should or should not do. These concepts also entail teachers' views of what is important in their professional work, drawn from practical experiences and personal histories (Tickle 2000). These self-evaluations are influenced by the extent to which one sees oneself as being able to perform at a high level or experiences professional self-acceptance. They are also influenced by how strongly one thinks significant others evaluate one's skills and abilities positively (Friedman and Farber 1992).

Following a literature review, Beijaard et al. (2004) have identified four key features that are essential for teachers' professional identity. First, the concept has been regarded as a dynamic process shaped by continuous interpretation and reinterpretation of experiences (Kerby 1991), similar to continuous professional development and a consideration of what one wants to be in the future (Conway 2001). Second, it encompasses both person and context. Teachers differ in the way in which they adopt professional knowledge and attitudes as they are expected within the school, and by that, to some extent, develop their own teaching culture (Feiman-Nemser and Floden 1986). Third, teachers' professional identity is made up of a number of sub-identities that relate to different contexts and relationships. It has been noted that it is essential for these identities to be well balanced and that this balance might be challenged during training, educational change or alterations to people's immediate work environment (Volkman and Anderson 1998; Connelly and Clandinin 1999). Fourth, agency suggests that teachers play an active part in the formation of their professional identity (Coldron and Smith 1999).

Teachers' professional self-identity has important implications for the way in which practice is shaped in response to policy. It determines the way they teach and how they approach educational changes (Nias 1989; Knowles 1992). It also influences the effectiveness of classroom practice and commitment to initiatives aimed at enhancing pupils' classroom or school experiences (Ross 1998; Leithwood et al. 2002). Discrepancies between policy requirements and what teachers regard as good practice may lead to

professionals' disillusionment. This is particularly true if policy changes are perceived as having a detrimental influence on pupils (Leithwood et al. 2002). Policies that reduce professionals' autonomy, discretion and consequently sense of control over their work, in particular, the introduction of experts into schools to advise other 'non-expert teachers' might imply a lack of trust in individual teachers' professional judgement and may have a significant influence on teachers' sense of self-efficacy, or indeed contribute to the erosion of their professional self-identity (Leithwood et al. 2002; Mulderrig, 2003). It is therefore understandable that specialist teachers attempt to retain a very strong sense of control and '*guard their position as subject specialists very tightly*' (Whitty 2002, p. 37).

2.4.5. Intrapersonal influences on policy sense-making: Values and emotions

Few studies have considered implementers' values and emotions and their role in sense-making processes (Hargreaves 1998, 2001; Spillane 2002) although it is known that policies requiring fundamental alterations to existing practice could be associated with a considerable emotional cost (Lampert 1990; Ball 1993). Jennings (1992) has found that teachers can become very upset when new reforms are interpreted as implying to practitioners that whatever had been done before was inadequate (Spillane et al. 2002).

The negative emotional experiences associated with having existing schemata or frameworks dismissed is due to natural self-protective mechanisms (Bandura 1986). People strive to maintain a positive self-image. They like to believe that they have performed well in the past and hesitate to accept that their efforts might have failed (Rosenberg 1965; Baumeister 1998). This self-protection is explained by a concept termed 'self-serving attributional bias', referring to the attribution of successes to personal efforts or qualities and the attribution of failures to other people or external circumstances (Mezulis et al. 2004). The belief of having achieved positive outcomes through past behaviour is supportive of people's sense of

self-efficacy, and plays an important role in well-being and overall functioning (Bandura 1986). Thus, any efforts of teachers in protecting a positive self-image are both natural and very important, although they carry the risk of introducing bias into the interpretation and implementation of policies.

2.4.6. Intrapersonal influences on policy sense-making: Knowledge structures

Sense-making of policy guidelines is also influenced by a person's knowledge structures, their beliefs about and attitudes towards teaching (Schank and Abelson 1977; Majone and Wildavsky 1978; Rumelhart 1980; Brewer and Nakamura 1984; Carey 1985; Markus and Zajonc 1985; vonGlaserfeld 1989; Cohen and Weiss 1993; Greeno et al. 1996). Therefore, interpretations of educational policy are influenced by teachers' own view of teaching (Cohen 1990; Wilson 1990), pedagogic skills (Cohen et al. 1998; Spillane 1998) and opportunities to learn about the policy (Cohen and Hill 2001). Whilst classroom teachers hold the most important role in the effective implementation of school health education programmes, their limited support and involvement has been noted to be of significant concern (Rowling 1996; Ridge et al. 2002; Clarke et al. 2010; Mohammadi et al. 2010). Others have criticized teachers for lacking appropriate skills that would enable them to deliver effective health education (Ennett et al. 2011).

Subject specialisation may be an important context in which teachers make sense of policy (Ball and Lacy 1984; McLaughlin and Talbert 1993). And different expert 'lenses' may impact on the way in which policy is enacted in classroom practice (Stodolsky and Grossman 1995). Such knowledge structures contribute to the formation of collective sets of related ideas or understandings, the formation of schemata. Schemata are constructed of links between related concepts and provide a coherent understanding of aspects such as 'going shopping', 'kitchen', 'classroom' (Schank and Abelson 1977; Mandler 1984). Such schemata help to effectively and

quickly make sense of new information, to make unfamiliar policy information become familiar (Flavell 1963). People access schemata to fill gaps left among pieces of explicit information they perceive about a situation (Bower and Morrow 1990). Schemata create expectations and associations and inform people about how to behave appropriately in certain settings or situations (Cantor et al. 1982; Trope 1986).

However, such schemata can lead people to pay more attention to information that is conform with their expectations (Olson et al. 1996), which may introduce bias into policy sense-making and subsequent decision making (Nisbett and Ross 1980). It has been found that new information that is inconsistent with people's existing ideas could be 'glossed over' in order to become more consistent. Thus new ideas could be wrongly considered as familiar and consistent with existing structures, leading to the omission of unfamiliar details. This process might be exacerbated by a lack of clarity in policy documents, demonstrating an interaction between policy and individual level influences. Where there is a clear mismatch between policies and professional 'lenses', they can be perceived as an imposition where teachers are left feeling '*coerced into being involved in something she knew nothing about*' (Inchley et al. 2007, p. 68).

Due to such heuristics, the majority of implementers prefer to attend to surface level appearances of policy measures rather than focus on the underlying rationale or function of policy ideas (Spillane and Callahan 2000). Case studies to explore the implementation of state policy frameworks for mathematics instructions have shown that teachers attended to familiar aspects of the framework in terms of content and instructional technique, but paid less attention to unfamiliar concepts (Cohen 1990). It has also been shown that teachers predominantly assimilate reform proposals into existing frameworks without fundamental changes to practice (Firestone et al. 1999; Spillane and Zeuli 1999). For instance, educational interventions aimed at introducing inquiry learning into science classrooms have been interpreted as extensions of library research and consequently incorporated into existing teaching practice without a substantial change to

pedagogic or curricular practice (Songer et al. 2002). Another study has found that teachers accurately interpreted a reform asking them to use problem solving activities to a greater extent, yet they disregarded the need to change fundamental features of student interactions in relation to the subject matter (Haug 1999).

The literature cited suggests that individual level determinants of policy sense making, such as subject specialisation and professional identity are shaped by determinants influences located at the social, organisational and policy level. These create a complex network of influences, which needs to be understood if the aim is to establish how classroom practice might change in order to enhance health education effectiveness.

2.5.Chapter summary

Policy implementation processes are complex and there is a multitude of interrelated determinants that shape practice. Whilst initial views of policy implementation regarded it as hierarchically occurring process in which centrally generated policies are transferred into practice, more recent arguments acknowledge the role of implementers and their sense-making and interpretation of policy as they enact it in practice.

Models of policy implementation propose that determinants are located at different levels of influence that interact. Whilst it is important to understand policy implementation processes, the literature reviewed indicates that there is also a need to examine how they shape classroom practice. It is clear that a performance focus of the national curriculum determines resource distribution in schools, as well as stakeholders' beliefs and priorities in relation to lesson outcomes. It encourages competition and produces a pedagogic discourse aimed at knowledge transmission to satisfy exam requirements. Such approaches have been found to reinforce inequalities in attainment and encourage shallow, surface level learning that prevents pupils from developing an understanding of the taught content. It is therefore important to examine the impact of national curriculum

requirements on practice. If it is as powerful in Wales as it is elsewhere it may undermine the intentions of the PSE framework. It may encourage inappropriate choices of pedagogic discourse and impede the integration of cross-curricular themes.

In order to examine this in more detail, the theoretical framework underlying this study distinguishes between policy, agency and practice. The policy context encompasses both the PSE framework and other related policies, which may impact on agents' situated representations of PSE policy. These are also shaped by organisational-, interpersonal and intra-personal influences. It is evident that policies and their contexts can influence implementers' sense-making through a certain level of clarity. Clarity is determined by the extent of discretion given to implementers, the perceived relevance of the policy to practice, the adequacy of language used to convey ideas in policy texts, as well as discrepancies in professional understanding between policy authors and their intended audience. The description of social actors and their roles in policy texts can determine the extent to which they feel engaged in the implementation process. Policy objectives need to be clear to specify, for example, how their operationalization through assessment procedures should take place. The characteristics of the PSE framework documentation need to be examined to understand the extent to which they might influence processes at agency and practice level.

Policy context influences on practice, in particular the prioritization of exam grades, are evident in how schools allocate resources and arrange their timetabling. If head teachers are in support of the policies they are likely to facilitate effective implementation. For example, they might encourage an organisational culture conducive to the effective integration or enactment of policy or provide school-, or local authority level support for collaboration among teachers. Such support is particularly helpful if it facilitates the development of socially created enactment zones through networks and links among teachers and between schools and other agencies. However, segmentation can contribute to a diffusion of responsibility and prevent

collaborative sense-making among teachers. What needs to be understood is how organisational arrangements in the participating schools facilitate PSE-related collaboration among teachers and how they might support the delivery of PSE within the school more generally.

From reviewing the literature it is clear that both policy context influences and organisational arrangements can influence how teachers feel about a policy. Individual level influences encompass teachers' views about their own skills and abilities and what constitutes good practice. However, policies that limit teachers' autonomy are likely to imply a lack of trust and contribute to an erosion of their professional self-identity. Particularly fundamental changes are likely to call into question many years of experience, likely to elicit self-protective mechanisms. It has previously been found that although classroom teachers are key to implementation they have provided very limited support. Others have criticized that some teachers might lack the skills to provide adequate health education. Professional schemata and lenses that arise from subject specialisation may not align well with health education practice, leaving implementers to focus on surface level changes.

These social and individual influences can lead to the use of heuristics that prevent policies from being fully implemented. It is important to understand how these individual influences might reflect policy- and organisational level determinants, and how they might shape sense-making of PSE policy and classroom practice. Mapping out this complex network of influences might hold potential for informing effective implementation of competency-focused pedagogic practice. It has been shown that this might enhance the effectiveness of school based health education interventions in generating sustainable health behaviour change. The next section draws together the arguments from the literature reviewed to clarify the gaps to be addressed and the questions this study seeks to answer.

Research aims and objectives

The high proportion of young people engaging in unhealthy behaviours represents an important public health concern. Particularly those from disadvantaged backgrounds are more likely to engage in risk behaviours. Multi-level school-based interventions such as HPS approaches seek to address these trends, although they have been found to be more effective in enhancing pupils' health knowledge than initiating a change in health behaviours. Lesson processes have been identified as a key barrier: Pedagogic approaches that are characterised by fact transmission largely due to curricular priorities are less suited to the development of skills relevant to health. The literature suggests that school health education approaches or policies may lack an awareness of the importance of pedagogic processes in eliciting certain learning processes, although they have also been linked to intrapersonal influences on young people's health behaviours.

Intrapersonal determinants, such as attitudes, subjective norms and self-efficacy are important in influencing people's intentions to engage in health behaviours. The link between intentions and behaviours can be strengthened through self-regulation. The use of self-regulatory behaviours such as goal setting, planning and self-monitoring in interventions has been found to effectively elicit sustainable health behaviour changes and improve health outcomes. The literature reviewed suggests that competency-focused pedagogic approaches may have the potential to promote self-regulatory behaviours and thereby enhance health education effectiveness in bringing about sustainable behaviour change. However, the implementation of competency-focused pedagogy in classroom practice faces a number of barriers.

In order to clarify these it is necessary to draw on the literature about school policy implementation, which provides an insight into the multi-level influences on practice. At the policy level, policy context or curricular priorities as well as the characteristics of policy documents can influence the effectiveness of implementation processes. It is therefore important to examine the policy context, as well as the characteristics of the Welsh

Government's PSE framework and how these might shape implementation and practice. At an organisational level, the distribution of responsibility and specialism within schools can influence how teachers make sense of and enact policy in practice. Whilst school arrangements can facilitate collaboration among professionals, segmentation can diffuse responsibilities. Policies have the potential to erode professional identity and elicit disengagement through limiting autonomy and dictating approaches that are not perceived to be beneficial for pupils or as located outside professional schemata. It is therefore important to gain an insight into organisational level influences within the school and how they might hinder or facilitate PSE provision, also taking account of intrapersonal level determinants by drawing on views of those who implement the PSE framework. In order to examine how these multi-level influences re-emerge in lesson processes, practice needs to be observed and pupils' experiences of PSE lessons need to be understood. Pupil perceptions might also provide an insight into intrapersonal or individual influences on health behaviours, and how PSE lesson processes might shape these.

Clarifying the possible links between policy-, organisational-, and intrapersonal level influences on classroom practice could offer suggestions for the implementation of competency-focused pedagogic discourse into school-based health education. Therefore, the overall aim of this study was to identify processes that could improve school based health education practice using a social ecological examination of the implementation of the Welsh Government's Personal and Social Education policy and how it emerges in practice. Although the research is focused on PSE in Wales only, it aims to identify opportunities for improving health education interventions more widely. An examination of current implementation processes and their impact on practice seeks out the spaces where something different can happen. This is reflected in two separate research aims. Research aim one is focused on implementation processes, whilst research aim two seeks to understand practice.

Research aim one is focused on situated sense making of policy and is:

To understand how determinants at different socio-ecological levels shape implementers' sense-making and representations of PSE policy documents.

Its four objectives are as follows:

- 1) To examine how the Welsh Government's PSE policy framework describes practice (aims of PSE, the content of the lessons as well as the processes for its implementation within the school and the lesson);
- 2) To identify how the PSE policy framework is reproduced at school level (aims, lesson content and the processes for implementation within the school and the lesson) and how the organisational context of the school might influence this reproduction;
- 3) To examine how implementers perceive the PSE framework and school PSE policies;
- 4) To identify from views of PSE practice how individual, social, organisational processes impact on implementers' sense-making.

Research aim two is focused on practice and is:

To understand lesson processes, their context and pupil perceptions of these to examine how the PSE policy re-emerges in practice. This aim is supported by the following two objectives:

- 1) To understand pupils' experiences and perceptions of PSE lessons, and the extent to which these reflect understanding and application of PSE relevant knowledge;
- 2) To describe the PSE lesson context such as classroom settings, the types of teacher-pupil exchanges during lessons including the proportion of competency-focused pedagogic exchanges.

The terms used in these research questions and corresponding objectives are operationalized as follows:

- 1) 'types of teacher-pupil exchanges' refer to the classroom talk happening during the lesson, and usually encompasses the teacher asking a question, the pupil responding and the teacher either confirming the accuracy of this response or correcting it;
- 2) 'competency-focused' describes classroom talk about common-sense, every-day knowledge and skills, such as practical skills for preparing a healthy meal or brushing one's teeth correctly. Lesson processes conveying such knowledge are usually characterised by tacit knowledge transmission through encouraging pupils' learning 'by doing', through group work and active engagement with the lesson content to facilitate deep-level learning, understanding and generalisation of knowledge across contexts;
- 3) 'Lesson content' refers to the thematic elements of lessons as suggested in the policy document, or as communicated within the observed lessons. This includes the aims lessons seek to achieve;
- 4) 'Lesson processes' encompass forms of delivering lesson content, the pedagogic strategies or forms of interactions or exchanges between teachers and pupils during the lessons, that are suggested by the framework or that are observed or talked about by pupils.

CHAPTER 3 Research design

This chapter sets out the assumptions underlying this study and constructs a methodological paradigm to guide the research approaches chosen. The implementation of policy, such as the PSE framework, involves decision-making processes that happen at different levels and evolve over time. Attempting to understand these is challenging and requires a careful alignment of the methodology (Exworthy 2007). However, the selection of research approaches and the use of specific conceptual frameworks informing implementation research has so far received limited attention (Walt 1994, 2008), highlighting the gap this study attempts to address. A socio-ecological perspective has shaped the literature review in order to understand determinants of health behaviours. This perspective is also used to inform the framework applied to guide this study, seeking to examine the implementation processes of school-based health education and their re-emergence in practice.

3.1. Ontological and epistemological considerations

An ontological position is concerned with how phenomena are regarded; a theory about what the world is like in order to make knowledge, the epistemology, possible (Patomaki and Wight 2000). This study seeks to identify how school-based health education might be enhanced by understanding the complexity of policy implementation processes, the influences that determine these processes, and their impact on practice. A critical realist perspective was therefore considered as most appropriate for this study. The following section will outline the assumptions underlying such a perspective and how these have shaped the study process.

Positivist approaches regard phenomena as unchanging and aim to confirm or refute testable hypotheses through the generation of statistically significant findings. They are criticized for diverting attention from unseen underlying mechanisms and contextual factors that may influence or

generate observable phenomena (Wainwright 2000; Williams 2003; Clark 2007). An interpretivist orientation views reality as a subjective representation within people's experience (Smit 2005). Critical realism (CR) is located within a realist/ interpretivist epistemology (Easton 2010). This orientation is being adopted into many disciplines such as sociology (Sayer 2000), economics (Lawson 1997), social work (Houston 2001), interdisciplinary science studies (Dickens 2003) and management (Ackroyd and Fleetwood 2004). According to Sayer (1992), one of the key assumptions of critical realism is that the world consists of events and structures. The most important aim of critical realism is to explain events or phenomena, and to understand the connecting mechanisms between entities that have led to certain events (Bhaskar 1978).

The purpose of this study suggests the need to attend to agents and their structure, considering how agents influence their surrounding contexts and thereby reproduce social phenomena (Garfinkel 1967; Bhaskar 1978; Pawson and Tilley 1997; Wainwright 2000; Dobson 2001; Bergin 2008). Giddens's (1984) structuration theory suggests that structure and agency are inseparable and that through the activities people engage in they create the structural conditions that make these activities possible. Due to people's reflexivity, actions and understandings are adapted to on-going activities and structural conditions. People develop routines that create a sense of security and that help them deal effectively with their social lives. The rules and resources people have offer a structure or systemic form to social practices. Therefore, structure can only exist through the activities people engage in. Although these structures might be constraining in some respects, they are important in facilitating activities that would otherwise not be possible. Thus, Giddens's (1984) structuration theory emphasizes the duality of agency and structure - the idea that every social phenomenon emerges from the conditions underlying it suggests that agents and their surrounding structures are inseparable. This duality has also been emphasized by others (Layder 1993a; Patomaki 2000):

As such these structural contexts entail relations of power and authority which constitute and influence social activity in these settings and the wider contexts within which these settings are embedded (Patomaki 2000, p. 321).

In this study, structure is represented by the policy context, the secondary curriculum and the way in which it is reflected within organisational arrangements in schools. Agents are implementers who have a role in interpreting the Welsh Government PSE framework and enacting it in practice. The duality between structure and agency is seen as shaping the realisation of the PSE policy framework in practice. Drawing on the cognitive framework considering several levels of influence on school policy implementation (Spillane et al. 2002), the theoretical framework underlying this study considers agency- structure relationships by focussing on people's situated sense-making of educational policy, which is influenced by individual, social and organisational contexts and the interaction between these influences.

3.2. Case study research design

Focussing on this situated sense-making of policy has been regarded as a *'contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident'* (Yin 2003, p. 13). Blurred, complex pathways between policy and practice appear to characterise the literature concerned with the implementation of educational policy in classroom practice. This provided the rationale for choosing an exploratory case study research design, as this permits the development of *'pertinent hypotheses and propositions for further inquiry'* (Yin 2003, p. 6).

Clarifying the study design provides a blueprint for the research process by characterising the data that is relevant, identifying appropriate approaches to collect and analyse it, and defining the quality criteria (Philliber et al. 1980). Multiple case designs have the potential to yield more robust findings and it has been noted that the use of multiple-case designs should be guided by

replication logic rather than statistical sampling (Yin 2003). More specifically, each study site should be seen as a case in its own right, and the selection of several cases should follow an expectation to yield findings that are either very similar (literal replication), or very different (theoretical replication) (Yin 2003). In other words, it has been suggested that *'cases may be chosen to replicate previous cases or extend emergent theory, or they may be chosen to fill theoretical categories and provide examples of polar types.'* (Eisenhardt 1989, p. 537). This study has focused on such polar types or extreme ends of a continuum by aiming to include schools within the highest and the lowest free school meal (FSM) entitlement quartile, where FSM is used as an indicator of the level of socio-economic deprivation.²

The way in which this study attempts to understand agency-structure relationships within a critical realist perspective requires the application of appropriate approaches to generate knowledge. Previous arguments have criticized critical realist approaches for predominantly explaining phenomena rather than reflecting on the practical application of approaches taken to research them, therefore providing limited guidance (Pratt 1995). However, one author has suggested three steps toward critical realist approaches: the postulation of a possible causal mechanism, the attempt to collect evidence for and against its existence, and the elimination of possible alternatives (Outhwaite 1987). Others have added that the research process may not be direct or linear but characterised by an iterative, on-going refinement of models where the *'process of conceptualisation and re-conceptualisation is central throughout the whole endeavour'* (Pratt 1995, p. 67). More specifically, such iterative approaches are supported by a process termed retroduction which *'consists in the movement from a conception of some phenomenon of interest to the development of a model of some totally different type of thing structure or condition that at least in part is responsible for the given phenomenon'* (Patomaki and Wight 2000, p.224).

² A detailed discussion on the value of FSM as an indicator of socio-economic deprivation has been included further below.

In addition to such a non-linear, iterative study process, the focus on contextual conditions influencing sense making suggests the consideration of a full variety of evidence such as documents, articles and artefacts to retain holistic and meaningful characteristics of real life events (Shavelson and Townes 2002). Drawing on more than a single source of evidence will identify converging findings (Sieber 1973; Yin 2003) and will facilitate more rigorous research by validating the conclusions drawn (Miles and Huberman 1984; Denzin 1989; Gray and Densten 1998; Nutbeam 1998). Using policy documents, interview and focus group data as well as classroom observation data attempted to gain an understanding of the influences that shape implementers' sense-making of PSE policy, ways in which it is enacted in practice and experienced by pupils. Pupil focus groups were arranged to take place after the lesson observations so the researcher was able to gain an impression of social dynamics within the class and to observe social interactions between focus group participants (Reed and Payton 1997). The study design reflects a multilevel perspective as suggested by the theoretical framework underlying this study (McLeroy et al. 1988; Spillane et al. 2002).

The overall aim of this study was to identify processes that could improve school based health education practice using a social ecological examination of the implementation of the Welsh Government's Personal and Social Education policy and how it emerges in practice. This aim encompasses two specific research aims. Research aim one is focused on implementation processes as seen by different stakeholders. In order to meet this aim and answer its questions, policy documents and interviews gathering data about implementers' perceptions of practice were drawn on. The second aim was to examine classroom practice and pupil perceptions, suggesting the generation of lesson observation- and pupil focus group data. The following sections will explain each of these different approaches in more detail.

3.3. PSE policy analysis

One important influence on implementers' sense making of policy is the way in which policy documents are constructed, how they describe practice and how they portray the actors who are to realise policy aims and objectives on the ground. Policy documents have the capacity to facilitate the transformation of knowledge into action, through *'the vocabularies and ways of thinking they generate, they reproduce, translate, and set into motion'* (Mackenbach and Bakker 2003, p. 52). Such documents are not merely regarded as something that has been produced to convey knowledge or ideas with the intent to be read widely, but are seen as a *'nexus of social practice'* (Brown and Duguid 1996, p. 6). They determine how the interaction between agents and their contexts shape practice (Spillane et al. 2002; Freeman 2006).

The way in which the policy is defined determines research approaches to examine it. It is important to clarify how policy is understood in the context of this study as there have been some variations in previous research. For example, McCuaig et al. (2012) have defined policy for the purposes of their study by describing the curricular programme they have evaluated. Formby and Wolstenholme's (2012) definition of policy has been limited to listing the thematic components of the policy they have evaluated. The paper by Mulderrig (2003) only names the policy papers that have been analysed. Suggesting a more inclusive understanding of policy, Walt et al. (2008) have defined as policy the *'courses of action (and inaction) that affect the set of institutions, organizations, services and funding arrangements'* (p. 310). Spillane et al. (2002) have referred to policy documents, regulations, directives, orders, legislation, workshops, pamphlets and funding decisions, and the way in which these are interpreted by implementers as policy signals. Drawing on the latter definition, this study regards as policy the PSE framework alongside any supportive documentation that has been produced by the Welsh Government, in addition to any documents that reproduce the PSE framework at school level. Other legislative regulations and their enactment that impact on the

implementation of PSE policy, such as school performance standards set out in the 2002 Education Act or Estyn inspection regimes, are considered to be part of the policy context.

Policy analysis is one area of policy research alongside evaluative and organisational studies (Hecló 1972). The policy analysis element in this study is concerned with understanding and explaining the substance of policy content and processes (Barrett 2004). Mulderrig (2003) has highlighted the importance of attending to discourse in policy texts as it can explain how policy is being shaped and enacted. A policy document analysis approach that is based on critical discourse analysis (CDA) is regarded as key towards understanding policy processes (Freeman 2006; Smith et al. 2009). Mulderrig (2003) has used CDA to understand how educational reforms are implemented and how key social actors in education were portrayed in order to examine how educational policies reproduce capitalism. The policy document analysis approach employed in this study was based on CDA principles, and aimed to offer an insight into how the PSE framework specifies the purpose of PSE, and how it guides implementation processes at school and classroom level. Another aim was to identify how the Welsh Government's PSE framework has been reproduced at local school level.

Drawing on the principles of macro-level critical discourse analysis, which suggest attending to the inter-textual meaning (Alvesson and Kärreman 2000; Barry et al. 2006), the initial stages of document analysis used grounded theory principles for categorising the data into emerging content- and process related themes (Glaser and Strauss 1967; Pratt 1995). Ball (1990) emphasized the importance of attending to both the content of policies and the structural mechanisms of discourse within them, thus further stages of analysis focused on the explicit content of documents such as the words present in the text, their function, and the structural mechanisms implied by the text (Alexiadou 2001; Thomas and James 2006). It was important to ensure the analysis enables an understanding of how the production and reproduction of PSE policy is shaped and how it provides

consistency, clarity and facilitates form- and function based understanding. It was also important to identify whether the language used in documents might align to the way in which teachers see practice as this has been found to be important in facilitating implementation (Lave and Wenger 1991; Smit, 2005).

In order to analyse the policy documents that were selected for inclusion in this study. The content of these was combined into a 'corpus' that contains all selected text in one document. This process has been described by Mulderrig (2003). This document could then be used for basic content analysis to identify, for example, the proportion of text concerned with explaining the aims of PSE policy. Although initial pilot analysis was conducted using Nvivo9, it became apparent that the process of separating the data into categories might de-contextualise individual components of the discourse within the policy document, thereby yielding less meaningful insights into the data. Therefore, subsequent analysis was conducted in Word 2010 to retain as much linkage as possible to the original data.

As this study focuses on agency-context relationships and how they shape classroom processes, the policy analysis in this study also attended to the way in which actors were described in the policy texts. It has been argued that an understanding of discursive features might provide an insight into power relationships, the roles of actors, and the distribution of responsibilities. For example, it has been found that the description of implementing agents in passive voice can lead to perceptions about their role being disengaged rather than holding responsibility for enacting the policy and achieving the aims and objectives (Smith 2008). Key actors in the PSE policy were the Welsh Government, and teachers. Word searches were conducted for the terms 'government', 'school', 'learning provider', 'teacher' and their grammatical function in the sentences examined.

Attending to the thematic position of words describing the key actors can also indicate how policy texts portray the relationships among agents within the implementation process (Smith 2008), or indeed the role of actors in

relation to beneficiaries (Mulderigg 2003). As Fairclough (2003) has noted, using pronouns such as ‘us’ and ‘we’ signalizes a ‘*democratization of discourse, of which one aspect is a tendency towards more informal language and the removal of explicit textual markers of power asymmetries*’. (p. 6). Following an initial examination of words describing key actors in their discursive context, the data were separated into broad categories representing themes or content to be covered in PSE lessons as well as the organisational processes of implementation at school level (macro-implementation) and the pedagogic processes within lessons (micro-implementation). These categories could then be subjected to further detailed analysis. PSE policies produced by the participating schools were examined in a similar way to identify how and to what extent they reproduced characteristics of the Welsh Government’s PS framework. In addition, it has been argued that the analysis of policy text becomes more insightful when it complements other approaches, as the processes of sense making and their impact on practice cannot be understood by using policy text analysis alone (Fairclough 2003; Smith 2008). Therefore, interviews with those responsible for implementing and focus groups with those experiencing policy in practice were conducted.

3.4. Interviews

Interviews have been characterised as a ‘*conversation with a purpose*’ (Berg 2004, p. 75). In this study they sought to gain an understanding of how determinants at different SE levels shape teachers’ interpretations of PSE policy. Interviews can either be very unstructured, very structured or semi-structured. A structured interview follows a predetermined schedule without diverting from its sequence or question wording in any way. Although offering the potential for interviewing large numbers of participants whilst still generating manageable datasets, structured interviews may not capture sufficient detail or may fail to leave room for interviewees to provide important contextual information. Such a positivist approach to interviewing may only generate a list of things people have said, or be ‘*simply a presentation of factors or (nominalist) realities about the world vocalized or*

reported upon by an informant' without offering the opportunity to focus on influences and contextual structures that may be evident in people's talk (Sayer 1992, p. 69). Unstructured interviews, on the other hand, may not sufficiently cover all the details required to answer the research question. In addition, it was important to consider the practical implications of collecting interview data in an unstructured way, which would not have been possible due to the limited time teachers and other stakeholders have available. In addition, the scope of this study could not have accommodated the broad data yielded by a series of unstructured interviews (Grbich 1999).

Semi-structured interviews were considered as generating the data that is most appropriate for the focus of this study as they offer flexibility and *'maximize the information flow by making use of communicative and social skills by being willing to adapt preconceived questions and ideas in the course of the interview'* (Sayer 1992, p. 223). Being able to adapt to participants' responses was most likely to generate data that permits a dual focus, an externalist focus on form and universality, as well as the internalist commitment to content and process as suggested by the critical realist perspective adopted by this study (Pratt 1995; Silverman 1985).

3.5. Focus groups

Focus groups aimed to gain an insight into pupils' experiences and perceptions of classroom talk in PSE, a reflection of how teachers' views of PSE policy have manifested themselves in practice. Such group discussions are normally organised to explore a particular set of issues and are a very popular approach in business and marketing research, although there is limited evidence supporting the effective use of these in social science research (Kitzinger 1994; Reed and Payton 1997). The unique advantage of focus groups is the social interaction among participants, which would not be accessible through individual interviews (Morgan 1988).

In order to generate meaningful data that moves beyond a description of topics raised by participants, Reed and Payton (1997) suggested attending to issues of time and person, to observe power relationships and social

structures between the focus group participants. The focus groups in this study were held with pupils from classes that have previously been observed so there were opportunities for the researcher to build up rapport with the focus group participants, to identify such power relationships and social structures between the pupils, and to create links to other classroom- and school-level data. Being more familiar with the pupils also meant they were more comfortable during the focus group, and this offered more opportunities to observe naturally occurring interactions.

3.6. Interview and focus group data analysis

The critical realist perspective adopted by this study has implications for the analysis of data collected. Content analysis, which seeks to capture the frequency of words, imposes researchers' preconceptions and draws out certain words or concepts solely on the basis of how frequently they have been used. Such an approach is not regarded as useful in generating an understanding beyond description: *'This is not a conceptually sophisticated method of classification; it is likely to lead to chaotic conceptions rather than rational abstractions'* (Pratt 1995, p. 69). Instead, it was important to examine explanations and the diversity of understandings that actors work with, drawing on peoples' perceptions using grounded theory concepts (Glaser and Strauss 1967).

According to Charmaz (2006), grounded theory is an inductive, comparative, and interactive approach to inquiry that offers several open-ended strategies for conducting emergent inquiry (Glaser and Strauss 1967). Grounded theory is popular in education and health research and has been described as one of the *'most influential and widely used modes of carrying out qualitative research when generating theory is the researchers' principal aim'* (Strauss and Corbin 1997, p. 2). Whilst acknowledging that grounded theory processes may offer guidance for qualitative researchers, Kelle (2005) highlighted some problems with the methodological concept of 'emergence' and the idea that researchers must not approach the data with any theories in mind. He noted that *'the researchers' theoretical sensitivity'*

provides a perspective that will help to see relevant data and abstract significant categories from his scrutiny of the data (p.12). He also encouraged an open mind towards supporting and opposing evidence. Thomas and James (2006) cautioned that the richness of qualitative inquiry may be limited through the imposition of grounded theory principles, as it may oversimplify '*complex meanings and interrelationships in the data*' (p. 3). The identification of explicitly observable phenomena was noted to divert attention away from the interaction between structure and agency or activities (Layder 1993) and be less able to facilitate discovery and explanation (Ricoeur 1970).

Therefore, the application of grounded theory in this study was restricted to the initial stages of analysis in order to develop and verify themes in line with the theoretical framework underlying this study (Glaser and Strauss 1967; Pidgeon and Henwood 1996). Later stages sought to capture the richness of the data and its ability to generate an understanding of people's interpretations and associated meanings. Therefore, subsequent analysis processes attended to detailed issues and nuances within the data, following an iterative approach as described by Alexiadou (2001): 1) Themes that were deemed as most relevant to the research question were identified in the transcript, broadly focusing on latent and explicit content, with particular attention to the content and processes of PSE lessons as intended by the policy. 2) Short summative accounts were written to identify the meaning of these main themes. 3) Original data representative of the themes was clustered accordingly to identify functions or subcategories. 4) Clusters of original data alongside summative accounts were examined for contradictions or inconsistencies, and clearly emerging functions of themes or linkages between the themes were expanded and elaborated on in writing, retaining relevant exemplars from the original data. Additional themes that occurred less frequently were retained and described accordingly. 5) Links between the main themes were drawn to help generalisation from the data. At this stage, Alexiadou (2001) suggested that patterns can be identified from ways in which participants talk about their experiences. On the basis of these summary accounts, propositions could then be developed, clustered

and linked to theory. To retain as much linkage to the original data as possible, interpretive or descriptive narratives were kept to a minimum to ensure exemplars from original data can effectively illustrate participants' views and experiences more effectively (Alexiadou 2001).

3.7. Lesson observations

An exploratory case study approach suggests the consideration of the full variety of evidence to understand people's interpretations of PSE policy, resulting practice and how these are influenced by agency-structure relationships (Yin 2003). Therefore, the most appropriate tools for critical realist research are those adopted from ethnography such as '*direct observations of activities or particular members of a group and the description and evaluation of such activities*' (Pratt 1995, p. 68). Carrying out observations has the potential to identify aspects that are not usually uncovered with other research methods and they could help address potential discrepancies between what people say and actually do as a result of social desirability bias (Mays and Pope 1995b). Examining practice was very important for this study in order to understand how teachers' interpretations of PSE policy shape classroom practice. Observation research methods usually use a systematic recording of behaviour through note taking or tape recording (Mays and Pope 1995a; Storr et al. 2002). Data are generated as the researcher becomes 'immersed' in the situation to gain a first-hand experience into the setting or the situation being studied (Bowling 1997; Mason 1997). Capturing as much detail as possible about participants' actions and interactions was considered to generate data that permits an insight into the context and processes in classrooms and schools.

A researcher carrying out observational research can adopt different roles, and this is determined by the research question the study seeks to answer (Murphy et al. 1998). As specified in the second research aim (objective 2) the lesson observations carried out as part of this study aimed to gain an understanding of the content of PSE lessons and the processes or pedagogic approaches through which this content was delivered. Of specific interest

was the extent to which lesson talk incorporated exchanges that were similar to those aimed at enhancing self-regulatory behaviours. In order to generate observation data that adequately responded to this objective it was necessary to observe PSE lessons, make detailed notes about visible processes and record classroom talk. The observation schedule used in this study has been developed on the basis of previous classroom observation research (Teddlie and Liu 2008; Galton et al. 2009; Yoshimura et al. 2009). It includes a specific focus on physical classroom characteristics to capture the extent of classification or the insulation between subjects evident in physical characteristics (Bernstein 1971).

Observations can be carried out in a covert way where those who are observed are unaware of the study taking place (Gold 1958). For practical and ethical reasons it would not have been possible to collect classroom observation data in this way. The role of a complete observer would have required me to be completely removed from the social interaction with pupils or teachers. Due to the confined setting of the classroom this role would not have been practical to assume. Instead, conducting non-participatory observations was the most appropriate approach for this study as it located me as the researcher in an outsider role (sitting in the back of the classroom) whilst all participants were aware of the purpose of this observation visit. Potential implications of the presence of a researcher will be further discussed, suggesting that a reflexive stance throughout the study can minimize the negative impact on the quality of the data collected. Producing detailed observation notes and records to create a 'chain of evidence' attempted to facilitate the development of findings suitable for theoretical generalisation (Yin 2003).

3.8. Lesson data analysis

The purpose of lesson data analysis was to understand how people's interpretations of PSE policy re-emerged in the classroom talk that occurred between teachers and pupils (Mercer 2010). This element of the study sought to examine the types of teacher-pupil exchanges during lessons, and

to identify the proportion of competency-focused pedagogic exchanges. The unit of analysis were Initiation-Response-Follow-up (IRF) exchanges, which refer to: the teacher asking a question, a pupil responding and the teacher either confirming or correcting this response (Morais et al. 1999; Mercer 2010).

These IRF exchanges were broadly classified into being either competency- or performance focused (Bernstein 1990). A focus on the types of IRF exchanges within lessons was considered to offer an adequate account of how shared meaning has been developed (Morais et al. 1999; Mercer 2010). This analysis approach was also informed by Morais et al's (2001) study examining the nature of teacher-student relations evident in classroom talk. Accordingly, performance-focused IRFs were further classified to explore the extent to which these exchanges were directed (PD) or guided by teachers (PG), or if they primarily focused on visible outputs such as worksheets (PV) (Morais 2002). Performance-focused IRFs that were specifically about the transmission of facts were marked with an 'f'. In order to specifically focus on self-regulatory elements within classroom talk, competency-focused IRFs were further categorised to explore whether they encouraged pupils' active engagement (CA), goal-setting and self-monitoring (CG), Modelling and reinforcement (CM/CR), or collaborative learning (CC) (Bandura 2005). Figure 2 below summarises this categorisation.

Figure 2. Categories and explanation of IRFs used to code lesson transcripts.

| |
|---|
| <p>Competency focus (invisible pedagogy)</p> <ul style="list-style-type: none"> • Active involvement or learner-centred [CA; C = Competency focus; A = Active involvement] • Goal setting and self-monitoring [CG; G = Goal setting] • Modelling and reinforcement [CM/CR; M = Modelling; R = Reinforcement] • Collaborative learning [CC; C= Collaborative learning] <p>Performance focus (visible pedagogy)</p> <ul style="list-style-type: none"> • Focus on visible output such as worksheets [PV; P = Performance focus, V = visible outputs] • Teacher in clearly directive role, teacher-centred [PD; D = Directed by teacher] • Teacher in guiding role, appealing for student participation though retaining teacher-centred approach [PG; G = Guided by teacher] • [ADD 'c' if the IRF is performance orientated but transmits competencies] |
|---|

The distribution of different types of IRFs was summarised quantitatively in order to describe the classroom talk observed (Morais et al. 1999). Employing a quantitative approach to produce a basic summary of the extent to which different types of exchanges were prevalent in the lessons was most appropriate in relation to the research question and the volume of data that had to be summarised. Selected exemplars of original, transcribed classroom communication were used to illustrate findings.

3.9. Combining qualitative and quantitative approaches

The critical realist perspective adopted in this study sought to gain in-depth understanding of people's sense-making of PSE policy and how it manifests in practice. It has been noted that approaches aimed at answering such questions should take into account a variety of perspectives by triangulating data obtained from several sources (Pratt 1995; Shih 1998; Streubert and Carpenter 1999; Yin 2003). There are different approaches to triangulation, such as the use of different evaluative or theoretical perspectives on the same data set or the application of different methodologies. This study attempted to triangulate different data sources (Patton 1987), which aimed to reflect the different socio-ecological levels of influence and the interactions among them, as suggested by the theoretical framework that has informed this study (McLeroy et al. 1988; Spillane et al. 2002). For instance, processes occurring at the policy level were examined using an approach based on Critical Discourse Analysis principles to understand the meanings within and characteristics of policy texts, whilst interviews with implementers aimed to gain an insight into the interaction between policy context and situated influences on policy sense-making. Practice was examined using lesson observations and focus groups. In order to develop an understanding of how the content and processes of PSE lessons are described in policy documents and people's narratives it was necessary to draw on qualitative approaches. However, a description of the proportion in

which the different types of pedagogic exchanges were present within lessons employed descriptive quantification.

Quantitative research methods facilitate the collection and synthesis of large volumes of data in a short time (Nutbeam 1998). However, they can limit opportunities for the researcher to capture the meaning of what is explored (Mercer 2010). Although qualitative approaches are more time consuming, they can offer in-depth explanations of phenomena (Holloway and Todres 2003). They can '*recover themes that are embodied and dramatised in the evolving meanings and imagery of the work*' (Spillane et al. 2002, p. 78), where themes are understood as structures or components of a particular experience. Qualitative research methods can offer the same scientific rigour as quantitative methods if the study aims, criteria for selection, sampling processes and the methods of investigation are as well defined (Denzin 2002; Cohen and Crabtree 2008).

Combining qualitative and quantitative approaches offers an opportunity to take advantage of both approaches (Mercer 2010). It has the potential to provide a detailed understanding of what is researched and facilitates synthesis of complementary findings. The triangulation of methods following the use of differing techniques to explain the same variable can support the validity of conclusions drawn, where mutual confirmation of results can be shown (Gray and Densten 1998). Following a review of over 70 mixed methods studies, O'Cathain et al. (2007) have concluded that the combination of methods can provide '*confirmation, complementarity, development and expansion*' (p. 86).

However, it is important to be mindful that triangulation of data should not be based on the assumption that '*the aggregation of data from different sources will unproblematically add up to produce a more complete picture*' (Hammersley and Atkinson 1995, p. 199). Sayer's (1992) distinction between intensive and extensive research methods has been criticized as vague and reflective of the challenges associated with the triangulation of qualitative and quantitative research approaches described elsewhere (Silverman 1985; Pratt 1995). Paradigms could be incompatible with one

another, and triangulation should not be seen as automatically reducing the bias introduced by inadequately chosen approaches (Duffy 1985; Blaikie 1991; Sim and Sharp 1998). In order to address these challenges, it has been suggested that the processes of how methods have been triangulated should be clearly described (Miles and Huberman 1984; Oberst 1993; Shih 1998).

A number of previous mixed- methods studies have been criticized for reporting findings in parallel without integration (Bryman 2007). The separate reporting of mixed methods findings may lead to disproportionate representations of either approach (O'Cathain et al. 2008). Although there are approaches for combining a variety of qualitative and quantitative research methods respectively (Moher et al. 1999; Sandelowski and Barroso 2003; Mays et al. 2005; Finlayson and Dixon 2008), combining findings from mixed methods studies is more challenging. Thorne et al. (2008; Thorne 2010) have suggested that an agreed framework is needed to guide the synthesis of findings from across different components of mixed methods studies, and suggested a systematic clarification of the research objectives, the approaches taken to research each of these and the findings generated. Such a systematic approach to mapping study findings would highlight overlaps. Mapping would involve listing the research objectives and assigning a numeric code to each of these, and listing the approaches alongside their numeric codes. Key points summarising the findings from each study component are then listed, using the alphanumeric code to identify how they have been derived and which research objectives they respond to. This approach enables a synthesis of key messages and findings across all elements whilst highlighting discrepancies and agreements across the different datasets.

Although previously used for large multi-method research programmes, a simplified version of this approach has been applied to this study to map the research objectives to the methods employed and the data used (Table 1). It aims to identify overlaps and similarities among findings from different data sources, or indeed discrepancies between different study elements. The next section sets out the quality criteria and explains how these different study approaches attempted to generate high quality case study findings.

Table 1. Overview of research approaches and study objectives.

| Objectives | Approaches and data |
|---|--|
| To examine how the Welsh Government's PSE policy framework represents practice (aim of PSE, the content of the lessons as well as the processes for its implementation within the school and the lesson). | Analysis approach based on critical discourse analysis principles of Welsh Government PSE framework and supportive documentation. |
| To identify how the PSE policy framework is reproduced at school level (representing the aim, lesson content and the processes for implementation within the school and the lesson) and how the organisational context of the school might influence this reproduction. | Analysis approach based on critical discourse analysis principles of school policies. |
| To examine how implementers represent the PSE framework and school reproductions of it. | Interviews with LEA level coordinators, head teachers, school-level PSE coordinators, and classroom teachers, interview transcripts were analysed thematically as described by Alexiadou (2001). |
| To identify from representations of PSE policy how individual, social, organisational processes impact on implementers' sense-making. | Interviews with LEA level coordinators, head teachers, school-level PSE coordinators, and classroom teachers, interview transcripts were analysed thematically as described by Alexiadou (2001). |
| To describe the PSE lesson context such as classroom setting, the types of teacher-pupil exchanges during lessons including the proportion of competency-focused pedagogic exchanges. | Lesson observations (physical setting characteristics, also in case study diary notes, and lesson recordings). Lesson observation notes and sketches about physical setting characteristics as well as case study diary were analysed thematically. Lesson transcripts from recordings were transcribed and content analysed to generate a quantitative description of the distribution of different types of exchanges. |
| To understand pupils' experiences and perceptions of PSE lessons, and the extent to which these reflect understanding and application of PSE relevant knowledge. | Pupil focus group transcripts analysed thematically as described by Alexiadou (2001). |

3.10. Quality criteria: validity and reliability

Yin (2003) has identified four main characteristics of a high quality case study research design: internal-, construct- and external validity and reliability. Internal validity refers to specific established causal relationships. As it is only applicable to explanatory or causal case studies, the exploratory approach chosen for this study will not take account of internal validity.

Construct validity is achieved through the use of adequate operational measures that are suitable for the concept or phenomenon that is being studied. To establish adequate construct validity it is important to cover two fundamental steps: 1) to select phenomena that are to be studied in relation to the objectives of the study, and 2) to demonstrate that the selected approaches are appropriate for this study (Yin 2003). Drawing on a critical realist perspective to examine the different levels of influence on people's sense-making and resulting practice, the preceding section has shown that the systematic application of a mixed- methods approach is most appropriate to respond to the research questions by generating a variety of evidence (Pratt 1995).

External validity refers to establishing a domain to which a study's findings can be generalized. Although exploratory case study research does not aim to generate statistically generalisable findings, it seeks to support theoretical development allowing particular sets of results to be generalised to broader theory (Yin 2003). Examining PSE policy implementation processes from a socio-ecological perspective will develop an understanding of the different determinants that influence the effectiveness of health education delivered as part of the school curriculum, which has the potential to develop theory informing future school health education interventions (Spillane et al. 2002; Walt 2008).

Findings from a study have a high level of reliability when its operations, such as the data collection procedures, can be repeated and lead to the same results. Reliability is normally established through assessing the psychometric properties of questionnaires using quantitative data. The most suitable process for ensuring a high level of reliability in this exploratory case study was through the maintenance of a detailed record of all study elements. It consisted of a case study report, a case study database alongside citations to specific sources within it, a case study protocol linking questions to protocol topics, as well as a detailed field visit diary, and the reciprocal, mutually reinforcing relationships between these elements. These linkages were retained throughout the study process to maintain a 'chain of evidence' (Yin 2003), which helped to generate a continuous record of experiences that may impact on the study process, as well as the findings and their dissemination, and to maintain researcher reflexivity throughout (Walt 2008; Holland et al. 2010).

Policy implementation research has been criticized for disregarding the importance of researcher reflexivity (Walt 1994, 2008). Positionality may have an impact on the research process, such as access to data, the type of data generated, and the way in which knowledge is constructed throughout the analysis process (Lincoln 1995; Rose 1997). It is therefore important to remain reflexive about researcher positionality in relation to the research processes and data generation (Bhaskar 1991). The particular importance of the supervisory team here was in offering expertise in school health research, policy implementation and pedagogy. Whilst I was able to draw on this expertise I do not have any background in teaching. I was therefore able to approach data collection and interpretation from an 'onlooker' perspective drawing attention to aspects and processes that may be taken for granted by 'insiders'.

The multiple case study design facilitated an insight into '*the variety of ways in which the world is represented*' (Pratt 1995, p. 69). Data analysis considered agency-structure relationships, the way in which PSE policy is conceptualised and reconceptualised at different levels and the influential processes located at each of these levels (McLeroy et al. 1988). Having

specified the methodological paradigm underlying this study, and provided a justification for the research approaches taken, the next section describes the ethical approval and consent procedures that were followed.

3.11. Ethical approval and consent procedure

Ethical approval was obtained from the Ethics Committee of the School of Social Sciences, Cardiff University (2nd June 2009; Ref. No SREC/503), and teachers, parents and pupils were asked to give informed, written consent. An outline of the study, a study timetable, sample copies of letters and information sheets for head teachers and parents, sample copies of pupil information leaflets and consent forms (Appendix 3), an observation schedule for classroom observations, a pupil focus group schedule and a stakeholder interview schedule (Appendices 4, 5 and 6) were submitted to the Ethics Committee of the School of Social Sciences, Cardiff University, and approval was received on 2nd June 2009; Ref. No SREC/503. The Ethics committee permitted the researcher to use an opt-out procedure with parents, meaning they received information and consent form. If parents wished their children to be excluded from the study, they were asked to return a completed opt-out form or notify the researcher by email or telephone by a deadline two weeks after the receipt of the letter. The researcher was in possession of an up-to-date Enhanced CRB³ check (issued April 2009). All focus groups and individual interviews were recorded digitally, transcribed and data was stored in a password-protected PC. Any hard copy data was stored in locked cabinets and all original data was destroyed upon study completion.

All participants were asked to sign an informed consent form. Informed consent '*shows that a transaction was not based on deception or coercion*' (Fraser et al. 2004, p. 22) and this study followed a hierarchy of consent. Schools were approached after Directors of Education within local authorities did not object to the study taking place. Those schools that

³ Criminal Record Bureau

agreed to participate were asked to provide the researcher with the number of pupils in each class so that anonymised parent letters could be prepared for the school to add addresses and send out by normal school distribution channels.

Parent letters included a covering letter briefly explaining why parental consent was needed and what parents have to do if they did not wish their children to be included in the study, an information sheet containing more details about the study, an opt-out form for parents, and a FREEPOST return envelope. Deadline dates for opt out responses from parents were set in agreement with the PSE coordinators within schools, who also made sure that the relevant teachers were aware and distributed letters to pupils.

The deadline date for receiving a parental non-consent form, an email or phone call was set two weeks after letters were to be distributed and at least two weeks prior to the day of the first lesson observation to accommodate pupil absences or additional queries parents might have. Once parent letters were distributed and the deadline had passed by which parents were asked to return their opt-out form, lesson observations were prepared. Prior to the observations pupils received an information leaflet and were asked to give informed consent by completing a form. Spare copies of pupil information and consent forms were available during each school visit. At the beginning of each focus group, pupils were reminded of the purpose of the study. They were asked whether they had understood the information and were still happy to take part, and were reminded that they were free to leave the focus group or choose not to answer any questions without any consequences at any time.

There is much debate about children being able to give consent and the influence of the power imbalance between adults and children in schools (Gallagher 2008). It has been suggested that children are unable to make such decisions (Morrow and Richards 1996; Miller 2000), although more recently it has been argued that even pre-schoolers are able to give consent if approached in an ethical way (Bone 2005; Smith et al. 2005). Although

the information paperwork was created in a way to be understandable for 11-year olds and the research process aimed to accommodate implications of research with children (Kellett and Ding 2004), some experiences made during data collection may have had an impact on the study process. These are reflected upon in the final section of the next chapter, which describes the study processes.

CHAPTER 4 Methods

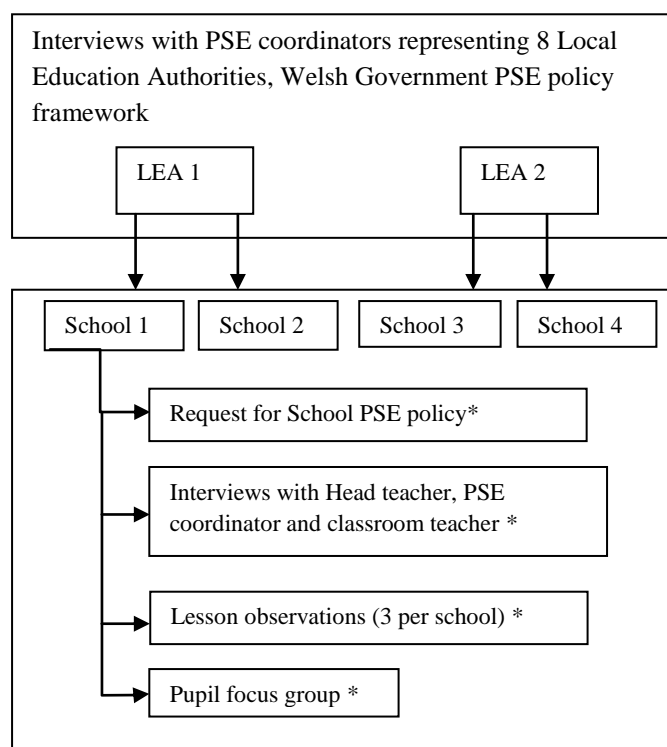
This chapter provides an explanation of the research approaches that were employed in this exploratory case study. The methods chosen attempted to create an understanding of how influences located at the policy, organisational and intrapersonal level might shape PSE classroom practice in the four participating schools. In order to examine whether these might differ between school catchment areas characterised by high or low levels of socio-economic deprivation, a systematic sampling approach was taken which is explained in detail. Recruitment at local authority-, school- and practice level is described and a detailed description of the different data collection procedures follows. The chapter ends with reflections on the overall research process, aspects of the study that might influence data collection and interpretation, and justifies pragmatic decisions that were taken.

4.1. Sampling

The theoretical framework underlying this study separates three levels of inquiry, reflective of a socio-ecological perspective of policy implementation (McLeroy et al. 1988; Spillane et al. 2002). The first and widest level refers to the policy context and comprises: 1) the Welsh Government's PSE policy framework alongside supportive documents and its reproduction at school level, and 2) policies that have an important influence on PSE policy implementation in schools. Second, the 'situated level' refers to organisational, social and individual influences on people's sense-making of PSE policy. Third, the 'practice level' entails the manifestation of these interpretations, and is concerned with the way in which lessons are delivered and how pupils experience these. The sampling framework reflects this separation to facilitate an understanding of processes that take place within and between these levels, as illustrated in Figure 3. Interviews were held with coordinators at local education authorities, and the Welsh Government's PSE framework and associated documentation was

retrieved. In each of these two authorities, two schools were recruited. In each school, the PSE school policy was requested and interviews were conducted with the head teacher, the PSE coordinator and the classroom teacher delivering PSE lessons. In addition, a focus group was held with pupils, and three lesson observations were conducted.

Figure 3 Illustration of the sampling framework.



*All four research approaches were carried out in each of the four case study schools.

4.2. Selection of policy documents

Understanding how people make sense of policy involves the consideration of its production at national level and its reconstruction at a local school level. As noted earlier, this study regards as policy the Welsh Government's PSE framework documentation, and the way in which it is reproduced school level. Other legislative regulations and their enactment that impact on PSE policy such as school performance and Estyn inspections were considered as the policy context. Policy documents were included if they were related to practice, such as the Welsh Government's PSE framework

and supporting documentation available through the PSE website, and school PSE policies available either on school websites or via school staff. In addition, policies had to be valid during the time of data collection between April 2009 and February 2010.

4.3. Recruitment at the situated level: Local Education Authorities

As the aim of this study was to understand people's interpretations of PSE policy, influences on these interpretations and how they shaped practice, a theoretical sampling approach was employed (Glaser and Strauss 1967). In order to facilitate adequate representation of important themes (Yin 2003) whilst taking contextual, multi-level influences on teaching practice into account (McLeroy et al. 1988; Spillane et al. 2002; Greenhalgh et al. 2004) it was important that sampling allows for both breadth and depth of data collection. The sample had to include a sufficient number of schools which permitted data collection to cover all aforementioned levels of inquiry. It also had to involve pupil focus groups, lesson observations and school staff interviews within the same school in order to gain an understanding of how people at different levels interpret PSE policy or experience how it is enacted in the classroom. As the PSE policy affects all secondary schools in Wales, the initial sampling approach focused on the four local education authorities (LEAs) in Wales that are geographically most accessible for logistical reasons. Prior to sending invitation letters to the Directors of Education in each LEA, the authorities were contacted by phone to confirm contact details, name and title of the relevant individuals, and when and for how long they were on leave during the summer vacation period to ensure the initial contact was accurate and professional. The letters to the Directors of Education asked recipients to return an opt-out letter or email if they did not wish this research to be conducted within their authority. The response deadline for opt-out forms was set two weeks after letters were posted. None of the authorities returned opt-out forms. LEA-level PSE coordinators from two authorities contacted the researcher by email to enquire how they can help. One phoned to suggest key individuals in their authority the researcher should contact to begin the study. One letter was received from a Director of

Education explicitly supporting the study and asking how the LEA might be of assistance.

After the opt-out deadline for the Directors of Education had passed PSE coordinators within all LEAs were approached, either following information received from initial contacts with LEAs directly or using contact details shown on the PSE website⁴. Of the 22 authorities in Wales, PSE coordinators supporting 17 authorities were invited to take part in a semi-structured interview. Five PSE coordinators responsible for supporting secondary schools were available to participate, representing eight different authorities. PSE coordinators in nine authorities were either not available or not in post at the time of recruitment due to part-time secondment arrangements. Additional data collection was possible within a forum discussion of the All Wales PSE network, a collaborative initiative between LEA-level PSE coordinators and the Welsh Government, which aims to monitor, coordinate and improve the PSE delivery in Wales. One Welsh Government official was present at this discussion forum. Eight PSE coordinators attended, representing LEAs both within and outside the original sample.

4.4. Recruitment at the situated level: Schools

The socio-economic circumstances of a school's catchment area may influence the way in which people make sense of PSE policy and deliver lessons (Spillane et al. 2002). The link between socio-economic disadvantage and achievement (White 1982; VonRueden et al. 2006; Fernald et al. 2008) and pupils' free school meal entitlement (FSM) has been well documented (WG 2008b). FSM has been used as an indicator of SES in a large proportion of school research (Sirin 2005) despite some limitations (Hobbs and Vignoles 2007; Harwell and LeBeau 2010). Children from families who claim income support or income-based job seekers' allowance are eligible to receive free school meals. This is meant to refer to children from households with less than £200 weekly income, which are the

⁴ (<http://new.wales.gov.uk/psesub/home/resources/pseacontactsinwales/?lang=en>)

bottom quartile of the income distribution. However, Hobbs and Vignoles (2007) have found that 22% of FSM claiming children's families have an income of more than £200 per week and 20% of non-claiming children's families have an income below £200 per week. Therefore, FSM appears to be a measure of those who actually claim FSM rather than offering a proxy measure for children's socio-economic background (Hobbs and Vignoles 2007). Whilst remaining mindful of these limitations within the volume of educational research applying FSM as an indicator for SES (Harwell and LeBeau 2010), this study used FSM as selection criterion in the absence of a more meaningful alternative.

In order to permit a comparison between schools with varying levels of deprivation within their catchment area and to account for 'polar types', or schools located at either end of the income distribution continuum, this study sought to include schools within the highest and lowest FSM entitlement quartile. A list of FSM entitlement percentages for all schools in Wales was obtained (WG 2008b). An Excel database was developed to categorise FSM entitlement percentage scores into quartiles and to facilitate basic calculations for informing the sampling approach. The highest and lowest FSM entitlement quartiles were selected, data were sorted by FSM percentage and the mean percentages for each quartile was calculated alongside deviation values, which sought to indicate how far schools' FSM percentages differed from the quartile mean.

After removing schools in local education authorities where no consent was obtained, those in the remaining sample were approached beginning with those closest to the quartile mean. Websites from schools were checked to identify whether or not they were Welsh Medium schools. If that was the case they were not approached as I do not speak Welsh and would therefore not have been able to collect data. If that information was not evident from the website, phone calls were made to confirm. Table 2 below illustrates the sampling approach listing the number of pupils and FSM entitlement percentage for all schools that were approached, and indicating which schools were the first to be invited to participate in the study.

Table 2. Sampling of secondary schools by FSM entitlement.

Bottom 25% mean percentage = 27.15% (55 schools)

Top 25% mean percentage = 5.579% (57 schools)

| Number of pupils | Free school meal entitlement percentage | Number of pupils | Free school meal entitlement percentage |
|------------------|---|------------------|---|
| 1318 | 19.49924 | 1327 | 4.521477 |
| 1127 | 19.87578 | 1427 | 4.695165 |
| 749 | 19.89319 | 699 | 4.72103 |
| 1302 | 20.19969 | 1756 | 4.726652 |
| 885 | 20.22599 | 958 | 4.80167 |
| 943 | 20.25451 | 1178 | 4.923599 |
| 749 | 20.29372 | 745 | 4.966443 |
| 958 | 20.35491 | 822 | 4.987834 |
| 959 | 20.43796 | 1178 | 5.178268 |
| 671 | 20.56632 | 316 | 5.379747 |
| 1204 | 20.93023 | 1920 | 5.416667 |
| 882 | 20.97506 | 592 | 5.574324 |
| 782 | 21.09974 | 806 | 5.583127 |
| 800 | 21.5 | 409 | 5.623472 |
| 1086 | 21.54696 | 615 | 6.178862 |
| 598 | 21.57191 | 1653 | 6.231095 |
| 479 | 21.92067 | 720 | 6.25 |
| 1252 | 21.96486 | 426 | 6.338028 |
| 1150 | 22 | 1131 | 6.366048 |
| 910 | 22.52747 | 359 | 6.406685 |
| 1061 | 22.62017 | 1125 | 6.488889 |
| 1041 | 22.76657 | | |
| 489 | 23.10839 | | |
| 792 | 23.86364 | | |
| 1065 | 24.13145 | | |
| 636 | 24.21384 | | |
| 1045 | 24.40191 | | |
| 685 | 24.52555 | | |
| 1017 | 24.5821 | | |
| 686 | 24.63557 | | |
| 481 | 24.94802 | | |
| 740 | 25.13514 | | |
| 1070 | 25.3271 | | |
| 620 | 25.80645 | | |
| 932 | 26.82403 | | |
| 750 | 27.46667 | | |
| 1089 | 28.28283 | | |
| 578 | 29.23875 | | |
| 584 | 30.30822 | | |
| 943 | 31.28314 | | |
| 706 | 31.30312 | | |
| 343 | 31.77843 | | |
| 445 | 31.91011 | | |
| 687 | 32.31441 | | |
| 853 | 32.47362 | | |
| 667 | 33.88306 | | |
| 630 | 34.44444 | | |
| 1429 | 36.80896 | | |
| 667 | 36.88156 | | |
| 909 | 40.48405 | | |
| 622 | 43.40836 | | |
| 813 | 44.03444 | | |
| 722 | 46.39889 | | |
| 569 | 52.54833 | | |

First school to be contacted in this quartile: FSM entitlement percentage of 5.5831; -.003% deviation from the mean of 5.579 % for this quartile.

First school to be contacted in this quartile: FSM entitlement percentage of 27.47; 0.31% deviation from the mean of 27.15% for this quartile.

Those schools closest to the mean were approached by letter in groups of six, simultaneously in both the top and bottom quartile of FSM entitlement. Prior to preparing information letters for head teachers, schools were contacted by phone to confirm their contact details on their website is correct, to confirm the names of the head teachers and to identify any other

potentially relevant information such as the name and position of the PSE coordinator in that school, any upcoming Estyn inspections and times when head teachers or PSE coordinators might be available for short informal meetings.

Recruitment for qualitative research with professionals in organisations has been found to be facilitated by initial, personal informal contact with more detailed written information provided at a later follow-up (Rapport et al. 2009). Drawing on this experience, schools were visited at the times when head teachers or PSE coordinators were most likely to be available, to explain the study, answer any immediate questions and hand over more detailed paperwork. At such an early stage in the study it was unclear what level of detail will be required for data analysis. Therefore I noted initial impressions during recruitment visits to schools, such as details about immediate surroundings of the school premises and any informal observations of staff-pupil interactions encountered. According to Yin (2003) such details contribute to the creation of a chain of evidence throughout the study, which has been noted to constitute an important component in establishing reliability within a case study research design.

In the first two groups of schools (6 high FSM, 6 low FSM) it emerged that head teachers or PSE coordinators happened to be off site or unavailable when I was visiting. Letters with detailed study information were left with the receptionists and followed up by phone one week later. As personal visits in twelve schools did not appear effective in making informal contact with key individuals, recruitment letters were sent by post in subsequent rounds of recruitment. These were followed up by phone calls or emails if that was possible. Up to four follow-up phone-calls were made. Each refusal or non-response was replaced by a new contact.

In all, 76 schools were approached, 21 in the low FSM entitlement quartile and 55 in the high FSM entitlement quartile. 8 schools expressed an interest in being involved in the study and therefore the response rate was 10.53%. Four of these 8 schools that were closest to the mean of FSM entitlement

within their quartile (1 low FSM quartile, 3 high FSM quartile) were included in the sample. Reasons for refusals (N = 68) were that schools were busy preparing for upcoming events or dealing with changes (new members of staff, new premises). Some stated that they were already supporting other research and could not accommodate this study, whilst others were concerned that the observation of PSE lessons might cause significant discomfort to teachers.

One explanation for this was that lesson observations normally take place as part of Estyn school inspections, and that teachers may feel more confident being observed when delivering their specialist subject than PSE. This may link to a fear of failure or simply the strive to maintain a positive self-image. People naturally like to believe that they have performed well in the past and hesitate to accept that their efforts might have failed (Rosenberg 1965; Baumeister 1998). This self-protective mechanism is linked to the concept 'self-serving attributional bias', the attribution of successes to personal efforts or qualities and the attribution of failures to external causes, people or circumstances (Mezulis et al. 2004). It is supportive of people's sense of self-efficacy which plays an important role in well-being and overall functioning (Bandura 1986).

4.4.1. Recruitment and selection at practice level

As the focus of this study was on skill development relevant to health and personal effectiveness, lessons to be observed were intended to be selected according to their relevance to health education (WHO 1986; WG 2008a) such as healthy eating, smoking, or pubertal development. However, for pragmatic reasons explained in section 8.7. other topics had to be included such as lessons focused on careers or financial awareness. Year 7 was chosen as it is the youngest group in key stage 3 PSE education. In addition, early adolescence is a time of rapid developmental changes taking place and a period of socially determined exposure to health-related influences (AAP 2009). Therefore, this period of change has also been described as a 'critical period' for shaping health behaviours, presenting an important window of opportunity for health promotion (Bonell et al. 2007). In addition, 11 years

is the youngest age group where the application of competency-focused pedagogic approaches have been found to influence pupils' academic and personal development (Zumbach et al. 2004; Simons and Klein 2007).

The recruitment of focus group participants was intended to take place after the lesson observations so the researcher was able to gain an impression of social dynamics within the class and recruit pupils in order to observe social interactions between focus group participants (Reed and Payton 1997). In three schools the PSE coordinators agreed to this procedure, whilst in one school they preferred to pre-select focus group participants (St David's school). Table 3 below provides an overview of the number of pupils in the participating schools, the FSM entitlement, achievement levels, the number of pupils in each class that was observed, the number of parent withdrawals, the number of pupil withdrawals and how many pupils agreed to contribute to each of the four focus groups.

Table 3. Response rates: pupil recruitment

| Local Authority | School * | FSM entitlement | % Achieving 5 A*-C GCSEs including English or Welsh + Maths (2010) | Number of pupils | Number of pupils in class observed | Number of pupil withdrawals | Number of parent withdrawals | Number of pupils participating in FGs |
|-----------------|------------|-----------------|--|------------------|------------------------------------|-----------------------------|------------------------------|---------------------------------------|
| 1 | Meadow | >20% | 30 | 500 – 1000 | 27 | 1 | 0 | 6 |
| 1 | Elmhurst | >20% | 39 | 500 - 1000 | 16 | 1 | 1 | 6 |
| 2 | Oakwood | >20% | 55 | 500 - 1000 | 26 | 6 | 0 | 6 |
| 2 | St David's | <10% | 74 | 1000 - 2000 | 27 | 0 | 2 | 5 |

*School pseudo names

4.4.2. Case study school characteristics

As evident from the description of the case study sample (Table 3), three of the four case study schools in this sample were located within the bottom quartile of FSM entitlement (>20%), whilst one was within the top quartile (St David's School, <10%). Meadow School had the largest proportion of

pupils who are entitled to free school meals, followed by Elmhurst School and Oakwood School. Although not an ideal measurement of socio-economic deprivation (Hobbs and Vignoles 2007), these free school meal entitlement proportions seemed reflective of the type of catchment areas of the participating schools, and some of the physical characteristics of school surroundings:

The name of Meadow School was indicated by a small, scorched plastic sign. The outside walls were painted recently using dark paint to cover graffiti. There were some broken window panes on the ground and first floors, which were patched up with yellowed Perspex pieces. The inner yard with weeds growing between broken concrete pieces was used regularly by pupils to walk in between buildings. The reception waiting area was separated from the reception desk by a glass hatch, similar to a train station service point. In the waiting area there were worn carpet tiles that partially covered the floor, surrounding one large, scuffed leather couch. This reception area contained a large display of pupil work. Drawings had been produced as part of an environmental initiative concerned with the history and development of the local area. Many drawings had a negative feel to them, showing desolate buildings covered with graffiti, or natural environments spoilt by litter and other forms of pollution. Some drawings presented a characteristic works silhouette in front of a sunset with 'creativity' written into the smoke rising from the chimneys. There was also a large display with photographs of pupils who had achieved good GCSE grades in the past year, alongside their teachers. To some extent these physical characteristics observed in Meadow School differ from those that are regarded as key elements for HPS approaches (Flisher et al. 2000). Those areas that were observed did not necessarily appear stimulating and there was no visible evidence of pupil participation in decision-making. Although the curricular teaching and learning around PSE appeared well-focused and organised, there was no visible evidence of partnership work.

Elmhurst School seemed well-used but not run down with a bright, spacious reception area displaying pupil work and photographs and a good number of enormous armchairs in the staff room. Elaborate posters displayed

information on environmental aspects and reminded pupils to recycle, alongside specially designed bins for cans and plastic bottles (i.e. large model of a Coca Cola can, which the design and technology teacher has created out of a plastic bin). There was a Pastoral Support Office clearly signposted and accessible from one of the main corridors. Elmhurst School was the only school where I was invited into the staff room, which seemed to be a popular space for teachers to withdraw in between lessons. Observation data from this school suggested a school ethos characterised by pupil participation and involvement as suggested by HPS approaches. The walls from the entrance through to the classrooms were covered with artefacts, photographs, shelves with trophies, and pupil art work. Posters with photographs show pupils and teachers participating in gardening activities during the summer. There was also evidence of the school working in partnership with outside organisations to provide special support to pupils or to provide varied experiences. However, the organisation and planning of PSE provision seemed limited in this school.

Oakwood School was newly built after a fire in 2006 and is an innovative construction incorporating steel and glass. A large plasma screen facing the entrance displayed school news, the outside temperature and humidity and other environmental information, daily lesson information or any special arrangements. A very large image of the school logo was inlaid into the floor of the main entrance. One of the corridors was covered by a high glass roof and there was a gallery to reach classrooms on the upper floors. Drinking water fountains were located conveniently in every corridor or entrance throughout the school. Although there was only a very small amount of award certificates, trophies and photographs displayed in the reception area, everything in this school appeared to have been done to the highest standards of built, decoration, functionality, cleanliness or hygiene to the point of conveying the sterile feeling of a healthcare setting. The characteristics of this new building may certainly provide a safe and stimulating environment in line with HPS approaches, although there was no evidence of pupil participation visible. Partnership work with parents, other members of the community, local businesses or voluntary

organisations was not evident from the physical surroundings. The organisation and planning of the curricular elements of health education or PSE was limited to a few days within the academic year in which the normal timetable is suspended.

In St David's School the entrance and reception area were very well presented, with laminate flooring and new leather chairs. There were displays of 'thank you' certificates from charities for fundraising activities that pupils had undertaken and photographs from various sports groups or other activity groups receiving awards. Although there was student work displayed only to a limited extent, walls in corridors and classrooms were decorated with student work or evidence of student initiatives. The observation data in this school suggests a number of similarities to HPS elements, more than in any of the other schools. Curricular teaching of PSE was well organised, and the school seems to provide a safe and stimulating environment. There was visible evidence of pupil participation as well as partnership working with external individuals or organisations. Having briefly introduced the characteristics of the four participating schools, data collection procedures will be explained in the following.

4.5.Data collection procedures

4.5.1. Interview procedures

Interviews with LEA PSE coordinators and teaching staff were conducted by the researcher, recorded digitally and transcribed verbatim. All interviews were held at the relevant educational or public settings. Questions were open-ended and the semi-structured way in which the interviews were held permitted the researcher to probe further on specific responses or themes (Silverman 1985; Pratt 1995). In order to understand people's interpretations of PSE policy and their views about how PSE should be enacted in practice with a specific focus on content of PSE and processes, participants were asked what they thought PSE is about, which teaching approaches they apply to delivering these lessons and the rationale

for these (Walt 2008). An interview schedule has been appended (Appendix 4).

4.5.2. Focus group procedures

Focus groups were also facilitated by the researcher in a library, common room, dining room or classroom where a teacher was in sight or nearby. Discussions were recorded digitally and transcribed verbatim. To initiate discussion and allow for group interaction to evolve, focus group questions were open-ended and permitted for additional topics raised by pupils to be explored further (Morgan 1988; Reed and Payton 1997). In order to gain an insight into pupils' experiences of the content and process of PSE lessons, focus group participants were asked what they thought PSE is about and what they liked best and least about PSE lessons. The focus group schedule is included in Appendix 5.

4.5.3. Lesson observation procedures

Non-participatory lesson observations were carried out by using an observation proforma and free text notes (Appendix 6). In addition to creating a record of activities pupils engaged in, the schedule prompted a sketch of the classroom layout, notes about lesson details, and a post observation summary of each lesson (objectives, details of tasks, group composition and extent of instruction related to collaborative work work). All lessons were also recorded digitally, except for those observed in one school (St David's School) where parents felt lesson recordings would inhibit open discussions around pubertal development. Instead, detailed (shorthand) notes were taken. All lesson recordings and handwritten notes were transcribed digitally for detailed analysis. Before presenting the findings from these different approaches, the final section of this chapter reflects on some experiences that have been made during the study, which may have influenced the data collection, analysis and interpretation.

4.5.4. Reflections on the research process

Research with children has a number of implications for the research processes and findings. This study has shown that processes around obtaining pupil consent needs to be carefully considered, as the power imbalance between adults and children can affect the way in which pupils see themselves in relation to the researcher. Such power imbalances might also affect the quality of the data collected. This section draws on some key experiences during the research process, and identifies some important considerations in relation to the generation of knowledge in this study.

The Children and Young People's participation Standards for Wales (CYPP) specify the requirements for involving children in research. They ask that information is easy to understand and clear, that children are given a choice whether or not they want to be involved, that they are able to get something out of their involvement, that research procedures do not discriminate against any ethnic or disabled groups of children, that they receive feedback for the input they have offered and that feedback from children about the research process is acknowledged and taken forward.

This study attempted to take all those requirements into account, beginning with the provision of accessible information, designed to be as child-friendly as possible with coloured cartoon images and in the form of a folded leaflet rather than a simple A4 page which would resemble the many worksheets pupils normally receive. To ensure the information paperwork is accessible and understandable for year 7 pupils, children of this age group were consulted during the development of the study information and consent paperwork. The consent form offered children a choice as to whether or not they wish to contribute to this study. The study did not discriminate against any groups of pupils and everyone has had an opportunity to contribute to the focus group regardless of their ethnicity or special needs status. Teachers agreed to inform me about any such needs to facilitate adequate preparation for data collection or consideration during analysis.

The information leaflets highlighted to children that they will have an opportunity to contribute to how things are done at school: “*You get a chance to talk about your experience of PSE and know that your participation can make a real contribution to important decisions about school-based health promotion.*” No direct incentives were offered as this would have been considered as an inappropriate way to motivate pupils to participate. Instead, schools were offered a payment of £150 upon completion of data collection to add to their PSE budget, out of which teachers are able to pay for visitors, school trips, or special resources. Children received feedback upon completion of this study and these dissemination materials were again developed in collaboration with young people of similar age.

However, the intended alignment of ethical procedures in this study to CYPP standards was somewhat limited in practice by the power imbalances between adults and children in schools. Foucault (1982) defined power as something that acts upon action, whereas DeCerteau (1988) explained how people respond creatively and subversively to power, moving away from the view that people are passive recipients of what is imposed on them, and introduced the notion of ‘making do’. Such processes emerged in previous studies with school children. For example, pupils responded to questionnaires by filling in false names to ‘make it all more fun’, by choosing not to comply with the researcher’s requests of building a model of a classroom but deciding to build a castle instead (Gallagher 2008). Drawing on DeCerteau (1988) and Foucault (1982), Gallagher highlighted that power could be reconceptualised as ‘*a form of action carried out through many strategies*’ rather than considering it as a static capacity or commodity that is unevenly distributed across society.

The distribution of power in child-adult encounters has been described as a productive and repressive force (Foucault 1982), which emerges in the management of pupils’ participation in research (Gallagher and Gallagher 2008). This is further problematized by a conflict of rights: the need to protect children’s rights, which, in some cases interferes with their right to have a voice (Sandbaek 1999; Powell and Smith 2009): The socio-political

positioning of children requires adults to give permission for children's participation in research although this places both children and researchers into positions of powerlessness. Researchers are completely dependent on agencies and gatekeepers to obtain consent for consulting with young people. Children are powerless in that they are dependent on gatekeepers to allow them to access adequate information and provide them with an opportunity to have a voice. These imbalances in power relations represent the main issue in ethical research with children (Holland et al. 2010), and they were also evident in the pupil consent procedures in this study. The influence over some aspects of the consent procedure was taken away from me by the schools' PSE coordinators, who in all four participating schools took on the main role in managing the schools' support of this study. As a result, it seemed that in some cases there was a diffusion of responsibility about who supported the study, retained pupil consent forms and knew about which parents or pupils opted out. Some teachers, therefore, assumed that all pupils ought to participate. Detailed field notes illustrate this power imbalance and how it affected the consent procedure in one of the four participating schools:

The teacher introduced the class to the forthcoming PSE day, and explained that I would follow them to all the sessions. I used the opportunity of being introduced to ask the pupils whether they have seen the information sheet, holding up a copy. As they confirmed that they have received it I held up a copy of the consent form to ask whether they've had an opportunity to complete this. Again, all pupils said yes, upon which I asked if I could have the forms. The teacher explained that he thought they were returned to the Head of Year 7 and that surely all pupils would be happy to be observed. He was obviously keen to start the lesson and continued with the instructions for the day. Noting that I should go to obtain the forms at the next possible opportunity, I returned to my seat and began observing. Shortly after that, probably in response to me switching on my recorder and beginning to take notes, one pupil raised his hand and told the teacher that he did not wish to take part in the

study, upon which the teacher laughed, role played a 'monster' making the whole class break out in laughter, and said 'she's not going to shine a bright light on your face and stick electrodes in your head, she's just observing what we do in PSE'. The pupil did not respond. I made a note and ensured that I followed this up and excluded this pupil from any further data collection.

In another school the teacher went through the consent forms with the whole class, reading out each question, telling them they have to tick 'yes' if they're happy, reiterating that I'm only observing the lessons. These examples illustrate how individual pupils' choices and rights to confidentiality were potentially compromised by imbalanced child-adult relationships in schools and they connect to earlier arguments, suggesting that the context of classroom observations can make it difficult for children to give consent out of their own choice (Tisdall et al. 2009). The compliance with adult requests is seen by pupils as a norm of good behaviour within schools (David et al. 2001). Gallagher (2008) described how difficult it had been to break down these norms, by re-iterating his status as a researcher, and by attempting to undermine his self-status as an adult (Holt 2004). Such normative power imbalances between adults and children within schools were also evident from pupils' verbal and behavioural responses to my presence in the classroom: Although the teacher introduced me as 'from the University, she's just coming to observe a couple of lessons to see what we do', pupils addressed me with 'Miss', the way in which pupils are expected to address teachers or other school staff: 'Good morning Miss, how are you? Miss can you help me, I'm not sure what to write there?'

Acknowledging such predispositions and their potential impact on how pupils contributed to and interacted during focus group discussions, it was reiterated to participants that they were not tested in any way, that there were no right or wrong answers, and that this was about them talking about their own, personal opinions and views. The focus groups with pupils were regarded as equally if not more important than data collection at other levels, as pupils are at the 'receiving end' and therefore experts in how they experience the lessons that policy makers develop and implementers enact

in the classroom. This notion shaped the way in which focus groups were facilitated.

As a result of having the reassurance that pupils should not see me in a similar position of authority as their teacher or other school staff testing them, three focus groups engaged in a discussion very quickly. However, participants in one focus group seemed so accustomed to school norms that they raised their hands in response to the first few open-ended questions. It required a number of reminders for pupils to move away from structured ‘question – hand up- response’ schemata, and to engage in a discussion. This observation suggested school norms to be very ingrained in pupil behaviours, where pupils seemed accustomed to comply with adult requests and follow certain behavioural patterns which may or may not have been in line with their choices. This response pattern may also be an indicator for pupils not being encouraged to engage in discussions or share their views very often. Punch (2002) has argued that the main issue about adults doing research with children are adults’ perceptions of what children are and their position in adult society. Such perceptions may affect the way in which adults approach the research. In order to account for such potential influences on data collection and interpretation, Punch (2002) has suggested that one needs to be reflexive throughout the study process, and aware of own perceptions and assumptions (Holland et al.2010).

One of the themes of the PSE framework is concerned with citizenship in school, which aims to promote pupils’ participation with their environment and emphasize that they have a voice (Devine 2002). Indeed, PSE explicitly promotes citizenship, and seeks to “[...] *develop learners’ self-esteem and a sense of personal responsibility, to empower learners to participate in their schools and communities [...]*” (WG 2008a). The observations made highlight a number of contradictions to the structure of school environments that give little space to children’s citizenship status, and preserve power distributions in schools that are heavily skewed towards adults through tight control over processes and interactions (Robinson and Kellett 2004). One example might be the so-called ‘Tick-box’ approaches to asking pupils for their opinion, as these do not necessarily offer an insight into their

experiences (Holland et al. 2010). Processes observed in one of the participating schools illustrated how the requirement for pupil feedback marginalised other, more important lesson exchanges or indeed attention to whether the PSE is achieving its aim:

The PSE coordinator at Oakwood School explained that she is always consulting with teachers and pupils to ensure she receives feedback for all the PSE lessons in order to improve delivery each year. The processes for obtaining pupil feedback in this school, however, seemed less likely to generate an insight into how pupils experienced lessons. The following is an extract from a lesson transcript. The session was about smoking where pupils were engaged in a game of ‘snakes and ladders’, and in order to roll the dice and move forward in the game pupils had to provide the correct answers to factual questions about smoking. The last few minutes of the lesson became rather chaotic: while the facilitator (a visiting nurse from the local public health team) expressed to me that she feels exhausted and that she is keen to finish the session, the teacher remembered he had to give evaluation sheets to pupils and rushed to do so before they began to leave. As a result, feedback was obtained under pressure, where pupils were not allowed to leave on time if the form was not completed. They were given 44 seconds to complete an A4 evaluation sheet whilst some were still trying to get answers to important questions they posed during the session:

[P = Presenter (visiting nurse), C = pupils (names changed), T = teacher]

[...]

P: [finishing the session], there we are then, I hope you learned a little bit about erm some facts about smoking

C (Brian): we're not finished yet

T [loud voice]: can you fill in those sheets

P: the evaluation...

C (Adam): can we finish

C (Brian): can we can we finish

C (Adam): can we say who has won [referring to the educational game they have just been playing in the session, but question drowned in general chatter]

T: I need it all filled in please an answer to each question OK for the evaluation of this session the questions on there you need to fill in OK I need your polypockets there at the end of the lesson right and I need these collected in and you got 3 minutes before the bell goes if you wanna go on time you need to get this done you don't have a sheet here's one

C [chattering]

P: have you got a pencil

C (Adam): what is the name of the session

T: healthy hearts if you please

P: Oh yeah you need to write about healthy eating in there and what you thought about that and what you thought about the smoking one [...]

C: [bell goes 44 seconds later]

C (Brian): what we're supposed to write?

T: [very loud voice] can I have your poly pockets then with your names on it yeah

[more background noise]

[...end of recording]

This extract from the recording of the session suggests that pupil feedback may be unlikely to generate meaningful information about the way in which PSE lessons have an impact on pupils. In addition, it prevented pupils from asking some further questions about smoking that arose from the session and demonstrated poor lesson planning that failed to leave adequate time for pupil questions.

These insights show that although this study attempted to fulfil all CYPP requirements for involving young people in research, it was evident that the realisation of these requirements was limited by a number of contextual constraints in schools. Such processes were likely to have an impact on the quality of data collected, limiting the richness of responses, in particular where school staff chose to be directly involved in the focus group (as in St David's school) instead of remaining 'somewhere about, in sight but out of earshot' as was the case in the other three schools. Focus group participants in St David's school were selected by the PSE coordinator, which may have

further limited the breadth of responses. It will be difficult to assess the extent to which the emergence of such power imbalances between adults and children will influence the data that is generated. It has been noted that the inevitability of power imbalances in these child-adult relationships needs to be acknowledged and '*ethical practice needs to attend to them [...] rather than ignoring or blurring power positions*' (Edwards and Mauthner 2002, p. 27), therefore the detailed aforementioned 'chain of evidence' was maintained throughout the study period to facilitate clarity and reflexivity (Yin 2003). From these reflections it is evident that power relationships in schools need to be examined closely to identify how they are created and enacted, and how these imbalances could be reduced to design and align school research more closely to the standards set by the Children's and Young People's Participation Consortium Wales, to give children the genuine opportunity to develop their own sense of participation, citizenship, empowerment. The next three chapters present the findings from this study.

CHAPTER 5 Production and reproduction of PSE policy

This chapter presents findings from documentary analysis of the Welsh Government's PSE framework, the PSE policies that were produced by each of the four schools in this study, and how these policies were interpreted by implementers at different levels: LEA level PSE coordinators, Head teachers, school-level PSE coordinators and classroom teachers. The aim was to understand how these policies provided guidance for practice. The Welsh Government's framework set challenging but ambiguous aims whilst remaining vague about implementation processes. It is suggested that the use of passive voice in policy documents to describe the role of those responsible for implementation at different levels might lead to professionals regarding themselves as disengaged from the process. Whilst not mentioned in the PSE policy documentation, coordinators at LEA level have an important role in promoting PSE within schools. Characteristics of the national Welsh Government policy documentation re-emerged in school policies. Implementers' interpretations provided further evidence for the ambiguity of both Welsh Government and school policies, such as uncertainty about how to shape practice and how to evaluate it. In the following, the Welsh Government's framework documentation will be examined to provide an insight into how its characteristics might shape implementation processes.

5.1. The Welsh Government's PSE policy framework

The personal and social education framework for 7-19 year olds was published by the Welsh Government in 2008, and was aimed at encouraging learners' personal and social development of important knowledge and skills. The framework describes the skills PSE seeks to develop, such as thinking, communication, ICT and numeracy. It also specifies the themes that ought to be covered, such as active citizenship, health and emotional well-being, moral and spiritual development, preparing for lifelong learning, sustainable development and global citizenship. This policy framework

alongside supportive documentation comprised of a total of 16 documents, which were collated into a corpus consisting of 20,139 words. The documents included in the analysis are listed in table 4 alongside a brief description of their content. School policies were examined separately.

Table 4. Policy documents included in the text analysis.

| Name of document | Number of pages/ words | Brief description |
|---------------------------------------|-------------------------------|--|
| PSE policy framework | 36/7382 | Main document |
| PSE policy template | 2/387 | Template for schools to write their own PSE policy |
| PSE audit tool key stage 3 | 8/1045 | Template for different school departments to complete about how PSE skills are promoted in specialist subjects |
| PSE across the curriculum | 27/4451 | Explanation of how each core curriculum subject might support PSE skills and topics |
| Collaborative teaching and learning | 2/903 | Bullet point list naming and briefly describing classroom activities |
| Checklist role of visitors | 1/ 257 | Checklist for schools to self-evaluate how external speakers are managed |
| Checklist learner achievement | 1/ 118 | Checklist with criteria for schools to examine how they record pupils' achievement in PSE |
| Checklist monitoring PSE provision | 1/150 | Checklist to examine how organisational arrangements support PSE |
| Checklist monitoring learner progress | 1/130 | Checklist to evaluate learner achievement |

| | | |
|-------------------------------|---------|--|
| Checklist managing PSE | 1/130 | Checklist for the school to examine budget allocation and other elements supporting the integration of PSE |
| Checklist curriculum planning | 1/149 | List for school to self-evaluate the extent to which cross-curricular links are created, and all themes of the framework covered |
| PSE self-evaluation | 20/3727 | Extract from the Estyn inspection framework to help schools evaluate their own provision and prepare for inspections |
| Skills careers | 9/889 | Extract from the main PSE framework document considering the different skills |

The Welsh Government's PSE framework was predominantly concerned with lesson content, whilst lesson processes received limited attention. The following section will examine the way in which the aims of PSE are presented and how the PSE framework attempted to create an understanding of how practice is to be shaped by policy.

5.1.1. PSE framework characteristics shaping sense-making

The Welsh Government's PSE framework documentation presented the aims of PSE as a list of bullet points. These aims were broad, non-specific, and non-measurable statements of intent, focused on supporting, encouraging or empowering pupils. According to the framework, the aims of PSE were to:

- develop learners' self-esteem and a sense of personal responsibility*
- promote self-respect, respect for others and celebrate diversity*
- equip learners to live safe, healthy lives*
- prepare learners for the choices and opportunities of lifelong learning*

- empower learners to participate in their schools and communities as active responsible citizens locally, nationally and globally*
- foster positive attitudes and behaviour towards the principles of sustainable development and global citizenship*
- prepare learners for the challenges, choices and responsibilities of work and adult life. (p. 4).*

To provide a rationale for these aims, the document referred to the UN Convention of the Rights of the Child and the Welsh Government's Rights to Action, emphasizing the importance of including all learners. This was followed by an explanation of learner entitlement, re-iterating the responsibilities schools or other providers hold in protecting the welfare of children and young people. Learner entitlement, for example, has been explained in terms of accessibility, that programmes are to be aligned to learners' level of skills, knowledge, interest and progress and that *'learners of all abilities should have access to appropriate assessment and accreditation'* (p.7). This one-page description of how PSE should be delivered suggests a very broad approach, and remains unspecific about what learners are entitled to.

A small proportion of the PSE policy framework document (14%) offered guidance for implementation processes at an organisational level, providing an explanation about how school arrangements might facilitate the delivery of PSE. The text re-iterated the responsibilities of schools and the entitlement of learners, and explained the different resources the Welsh Government provides for schools to support PSE. The text also listed the characteristics of a holistic approach, making reference to both organisational-level (planning for visits) and classroom-level (promotion of positive relationships) changes. For example, the supportive documentation included a PSE action plan that specified priorities and a template for a local policy schools are expected to adapt for their own use.

This template defined PSE as comprising *'all that a school or college undertakes to support and promote the personal and social development*

and well-being of its learners' (p.1), and encouraged schools to add their school specific definition alongside their own PSE aims and a clarification on delivery, management and coordination. In order to encourage cross-curricular integration of PSE, another supportive document provided an explanation how core curriculum subjects might support the development of skills that relate to PSE. For example, it explained that English contributes to PSE by *'providing opportunities to develop their understanding of social interaction through collaborative working. The exploration and reflection upon texts dealing with a range of themes can encourage the development of self-knowledge, emotional maturity and empathy with the human condition.'* (p.2). There was also a PSE audit document for use within schools that required subject specialists or departmental leaders to state where their subject contributes to PSE. Although documentary analysis did not attend to how schools used these audit documents, some interviewees referred to these as requiring excessive work on the part of the school PSE coordinator as well as the subject specialist. Extracts from these documents can be found in Appendix 7.

Additional support for implementation at an organisational level was attempted through the provision of various checklists. These required schools to self-evaluate their provision using a monitoring checklist, a checklist for the role of visitors, and a school self-evaluation document that drew on the Estyn framework, encouraging schools to self-evaluate against Estyn inspection criteria to assess the quality of their PSE provision. There was also a checklist for curriculum planning and a checklist for managing PSE. These checklists contained non-specific and un-measurable practice objectives and evaluation criteria, similar to monitoring checklists for classroom processes. For example, criteria for the management of PSE in schools included regular sampling of pupils' work, PSE lesson observations, obtaining learner feedback and scrutinizing budgeting or the use of resources. The response format was a three point Likert scale which required a decision whether these behaviours were *'fully in place'*, *'partly in place'* or *'not in place'*.


A large proportion of the main framework document (58%) was concerned with lesson content, usually presented in the form of bullet point lists describing each of the five themes (active citizenship, health and emotional well-being, moral and spiritual development, preparing for lifelong learning, and sustainable development and global citizenship). Approximately 27% of the PSE framework document text referred to ways in which the provision of PSE was intended to be transformed at classroom level. As shown in Figure 4, these were mainly concerned with the skills learners are expected to use and develop. They were listed for each key stage, categorised into: developing thinking, developing communication, developing ICT and developing numeric skills. Each of these categories began with the statement that learners should be given opportunities to develop skills, followed by bullet point lists of the types of skills learners are expected to develop.

Figure 4. Extract from PSE framework document specifying learning outcomes for key stage 3 with regards to skills to be developed and topics to be covered (WG 2008, p.2).

SKILLS: Developing ICT

Learners should be given opportunities to:

- find and develop information and ideas
- create and present information and ideas
- use ICT safely and responsibly, following safe practices.



RANGE: Health and emotional well-being

Learners should be given opportunities to:

- display a responsible attitude towards keeping the mind and body safe and healthy
- develop positive attitudes towards themselves and others

and to understand:

- the relationship between diet, exercise, and good health and well-being
- the effects of and risks from the use of a range of legal and illegal substances and the laws governing their use
- how to use alcohol responsibly and the risks of binge drinking
- the law relating to aspects of sexual behaviour
- about contraception, sexually transmitted infections and HIV within the context of relationships
- the features of safe and potentially abusive relationships
- the role of marriage, the importance of stable family relationships and the responsibilities of parents

More details about how such opportunities might be created in the classroom were specified in additional resource documents such as a checklist to identify ways for recognising learner achievement within PSE, and a list for monitoring learner progress. Monitoring checklists to evaluate classroom processes were as unspecific as those aimed at self-evaluating organisational processes for implementation. For example, one of the statements suggested that learner achievement should be measured through teachers sharing learning objectives with pupils. Each of these statements was intended to be self-evaluated, as noted, on a three-point Likert scale as being either fully, partly or not in place.

Additional explanatory documents aimed to provide guidance for the delivery of themes such as violence against women, and a list of collaborative active teaching and learning techniques for PSE, a two-page bullet point list of lesson activities, briefly explaining these activities and what their benefit might be (WG 2008a):

Pairs provide relatively comfortable and secure opportunities for active listening and for learners to offer each other coaching and support. In order to encourage group cohesion and co-operation, random pairs are preferable to friendship pairs (p.1)

Matching requires cards to be made which can be matched together by the learners individually, in pairs or small groups. For example, drug cards may be matched to the effects and risks of each substance (p.2)

It was not evident whether these suggestions were based on evidence and no additional guidance has been provided about how to integrate these individual activities into a whole lesson. Similarly, no explanation was given about how classroom practice using these activities across one or several lessons, might be employed to promote a different form of learning, to encourage the development of certain skills or generate the desired outcomes. These findings suggest that the Welsh Government's PSE

framework documentation lacks clarity about how PSE is to be enacted in practice. The characteristics that have been observed are unlikely to create a shared understanding between the authors of the policy and implementers, and might contribute to uncertainty about how the policy is to be implemented (Conger 1991; Pfeffer 1992; Spillane et al 2002; Star and Griesemer 1989; Spillane et al 2002).

The PSE policy document referred to four different types of implementers involved in the generation and implementation of the PSE framework at different socio-ecological levels: Whilst the Welsh Government (1) produced the guidance and later provided some additional resources (such as DVDs), schools (2) were required to accommodate the delivery of PSE into their curricular arrangements and fulfil their statutory obligations. Teachers (3) were to use the guidance to shape the delivery of PSE, and support pupils who were expected to acquire certain knowledge and skills and to benefit from the provision.

Although the PSE framework assigned considerable responsibilities to teachers, their role was predominantly described in sentences using passive voice. Such discursive features may unintentionally lead to teachers perceiving themselves as disengaged from the implementation process (Smith 2008). For example, the role of teachers was described as members of an audience for pupils to engage with or as recipients of instructions detailing what should or should not be done. It has been argued that such a presentation of actors as subjects of passive clauses implies that the implementer is affected by the process rather than an active participant (Fairclough 2003). These discursive features may also create a contradiction to the content of the document which suggests that teachers are the key agents expected to take a lead in implementing the PSE framework.

Any references to the Welsh Government emphasized the role and importance of the documentation that it produced to clarify its requirements. There was no indication of an active, supportive role of the Government by using nouns such as 'we' and 'us'. This emphasized that the main responsibility for enacting the policy lies with the schools. The framework

described schools as settings where action takes place and reiterated their obligations throughout.

Pupils were predominantly referred to as learners, and largely portrayed as passive beneficiaries or recipients of support by using statements such as *'learners should be helped'*, *'learners should be supported'* or *'learners should be given opportunities'* (p. 5). This indirect way of referring to support given to pupils seemed to avoid specifying who should be providing this support and how this is to be done. It was unclear why the generic term 'learners' occurred throughout the framework document and supportive documentation, whilst LEA and school staff referred to 'pupils' during the interviews. This provides an example of the differences between the language used within the PSE policy framework and that used among teachers about practice. It has previously been found that such discrepancies between policy- and practice language might fail to create shared meanings and introduce ambiguity about the changes that are intended (Hill 2001; Lortie 1975; Lave and Wenger 1991; Smit 2005). These differences might also indicate policymakers possibly lacking awareness about practice and suggest that local teacher language and knowledge might only have been taken into account to a limited extent (Smit 2005).

The purpose of analysing Welsh Government's PSE framework policy documents was to examine the extent to which they provided a guide for professionals to implement PSE in practice and how its features might shape sense-making during implementation. Despite its size the national policy documentation had many gaps. The aims presented in this documentation were challenging, broad, ambiguous and non-specific or non-measurable. Whilst this could be seen as an advantage in that it creates flexibility for teachers to develop lessons they regard as important, it has been found that specific, measurable aims may be more likely to encourage higher performance (Doran 1981) and ensure policies are implemented as intended (Spillane et al. 2002). The guidance for implementation was dominated by a description of lesson content, whilst less attention was given to ways in which this content is to be conveyed to pupils. Suggestions for organisational implementation were briefer still. The implementation of this

policy in classroom practice was intended to be facilitated by a number of checklists with non-specific, non-measurable criteria. The Welsh Government as author of these documents portrayed itself as mere provider of policy documents, whilst schools were described as settings for action and holder of statutory obligations and responsibilities. Despite being regarded as key actors of implementation, discursive features of the documentation might lead teachers to considering themselves as passive recipients of instructions. Such a contradiction provides an example for ways in which characteristics of policy documents have the potential to introduce uncertainty and ambiguity. The development of the PSE framework documentation seems to have omitted considering the importance of different actors and ways in which discursive features might encourage their taking on an active role in implementation. Pupils are portrayed as beneficiaries, where the responsibility for provision appears to remain uncertain. The extent to which these characteristics have been reproduced at a local level will be evident from an examination of the PSE policies written by each of the four case study schools. Findings from school PSE policy analysis will be presented in the next section.

5.1.2. School PSE policies: reproduction of PSE framework characteristics at a local level

PSE policies written by each of the four participating case study schools reproduced a number of national policy document characteristics. Variations among these local policies also provided evidence of discretion and reflected differences among the four participating case study schools. Over 20% of pupils attending three of the four case study schools were entitled to free school meals (FSM), locating Meadow-, Elmhurst- and Oakwood School in the bottom quartile of FSM entitlement. The catchment areas of these three schools were characterised by a certain level of socio-economic disadvantage and unemployment. Only 30% of pupils at Meadow School were reported to achieve 5 A*-C GCSEs in 2010. St David's School was located in the top quartile of FSM entitlement and therefore a very different

school with fewer than 10% of pupils who were entitled to receive FSM and an achievement rate of 74%. However, the similarities among the three schools with a high FSM rate and extent to which these schools differed from the low FSM school were not reflected in the findings. For example, the PSE school policy written by staff at Meadow School showed similar characteristics to that produced at St David's School. Meadow Schools' PSE policy was a very detailed, extensive document which paid considerable attention to lesson processes, although strongly based on the suggestions made by the Welsh Government's PSE framework. The policy intended to provide guidance for staff within the school, and emphasize the importance of careers education and related support and highlighted that the school seeks to respond to the needs of learners. Similarly, St David's PSE policy was focused on providing guidance for staff within the school to deliver effective PSE by explaining the key themes PSE aims to offer alongside an emphasis on organisational integration. PSE school policies written for Elmhurst and Oakwood School, however, seemed to have been produced for external readers to demonstrate compliance with the national policy framework. For example, the school policy written for Elmhurst School focused on learner entitlements, stating that PSE is a statutory requirement and how the school was meeting its obligations. The school policy written for Elmhurst School began with a justification that the PSE programme delivery changed from weekly sessions to one day per term in order to reduce the number of times external speakers have to visit the school.

The characteristics of two out of the four school policies suggested policy authors attempting to integrate PSE within the school, whilst the remaining two policies appeared focused on demonstrating compliance. All four school policies specified who is responsible for organising and delivering PSE. Meadow-, Elmhurst-, and St David's School policies noted that assessment processes should be informal and conducted orally or through peer evaluation and that dedicated resources are available for the provision of PSE. These three policies also explained how the delivery of the subject is organised within the school. For example, St David's School policy contained a section named 'Curriculum Entitlement' which specified how

pupils in the different key stages are allocated to certain components of PSE: *'All pupils in years 7-13 have nine one hour lessons with their Form Tutor over the year in a Form Rolling Programme.'* (p. 3).

Although the national guidance document provided limited information about how schools are to organise the delivery of PSE, the authors of school policies evidently gave thought to the practical aspects of implementing the subject. All four school policies included a section specifying responsibilities for management, coordination, delivery, resource allocation as well as extra-curricular provision that contributes to PSE. All four school policies made reference to their community context, in particular by emphasizing the importance of community links or the need to enhance learners' community awareness.

Guidance for classroom practice varied considerably between the four school policies. Those developed by Meadow-, and Elmhurst School listed the themes to be covered alongside the skills to be developed, using text and logos from the original PSE framework document. Oakwood and St David's School policies explained how the delivery of PSE can take place through various programmes. Oakwood School's policy explained how a number of PSE elements are already delivered through another programme that exists within the school. Rather than attempting to justify the delivery of PSE through existing programmes, St David's school policy aimed to demonstrate how PSE relevant themes can be promoted within and outside of PSE, suggesting a wider integration within the school:

Health and emotional well being

Students are given opportunities to accept the responsibility for keeping the mind and body healthy and safe and to develop a responsible attitude to personal relationships. This includes discussions about relationships, exploring feelings, self-awareness and self-esteem; developing sexual awareness; the effects of and risks from the use of legal and illegal substances as well as a whole school Healthy Eating Initiative. External specialist agencies are regularly invited in to support the delivery of these topics. (p. 1).

Specific guidance for lesson processes or pedagogic practice was not part of the policies produced by Oakwood and St David's School, whilst one sentence in Elmhurst's School policy explained that PSE lessons should be delivered through '*a range of teaching and learning styles*' (p.2), and that the use of visitors should be well-planned and supervised by teachers. In contrast, the policy produced by Meadow School elaborated on lesson activities and guidance for practice, and specifically emphasized their relevance to careers and the world of work. Some of these were similar to the suggested classroom techniques listed in the 'Collaborative Learning and Teaching' document that has been published by the Welsh Government alongside the PSE framework document. The list of suggested classroom techniques appeared more like a 'toolbox' of different activities teachers might include in a lesson, specifying processes and activities to be done in work related education for each key stage. This particular emphasis on supporting pupils in making career choices may also reflect staff perceptions about pupil needs. This was also evident from the interview data with school staff, emphasizing the need to cover certain aspects within the school due to the characteristics of the wider school context, a catchment area with a high level of unemployment.

Although schools appeared to have used the policy template document published as part of the Welsh Government's supportive documentation, there were variations in how it has been adapted. For example, there were differences in how the content of PSE was presented: one school focused on preparing pupils for work life, one assigned alphanumeric codes to each of the skills and themes that the framework requires in order to generate evidence of delivering all of them, whilst yet another showed how an existing programme already covered themes suggested by the PSE framework.

There were also considerable variations in how these school policies described the beneficiaries of PSE. Although Oakwood School's policy used the word 'learner' many times, the term was hardly used in the other school policies. They used the word 'pupil' and mainly referred to pupils as recipients of support. In relation to pedagogic practice, the PSE teacher at

Meadow School used spaces for innovation by attempting to convey the lesson content through a variety of techniques and media to retain pupils' interest. Whilst small group or paired working activities were used to a limited extent in all schools during the lessons that were observed, none of the other suggested approaches seemed to have been adopted.

An examination of policies produced by each of the four participating schools aimed to understand how the PSE policy framework was reproduced at a local level, and to identify how these reproductions may reflect and influence sense-making. Policies written by the four case study schools in this study appeared to reproduce the ambiguity about aims and assessment that has been observed in the Welsh Government's PSE framework documentation. Particularly two of these reflected an emphasis on responding to 'obligations and responsibilities' by demonstrating compliance with policy requirements, whilst pedagogic practice and lesson processes received very limited attention. Characteristics of school policies apparently aiming to satisfy external examiners might be one of the indicators for the way in which schools respond to wider policy requirements, demonstrating a fulfilment of responsibilities within a performance focused policy context (MacBeath 2008). They provide another example of schools' emphasis on results and performance in response to external requirements (Whitty 2002). In a similar way to how schools were described in the Welsh Government's PSE policy framework, the policies written by the four case study schools portrayed themselves as the setting where action takes place. They also portrayed the key actors of implementation, teachers, as recipients of instructions, guidance and resources as well as holders of responsibilities. Similar to the discursive features observed in the Welsh Government's PSE framework, they used passive voice. It has been found that such discursive features might imply to readers a sense of being disengaged from the implementation process (Fairclough 2003; Mulderrig 2003).

Each school appeared to have its own way of describing the beneficiaries of PSE, whilst one reflected the Welsh Government framework documentation by frequently referring to 'learners', others used the word 'pupil' to align

with the practice-related language used by school staff. This reproduced the disconnectedness between the language used within the PSE policy document and that used in everyday practice, potentially introducing ambiguity into implementers' sense making (Hill 2001; Smit 2005). The role of pupils was predominantly portrayed as one of passive recipients of support.

One of the aims was to examine how the Welsh Government PSE policy framework is reproduced at school level and what influences might shape this reproduction. It was evident that the school PSE policies produced by Meadow and St David's School were aimed at school staff and focused on pupil development. Those produced by Elmhurst and Oakwood School, however, appeared more focused on demonstrating compliance with external requirements. These school policy characteristics represent one important element in the implementation of the PSE framework in schools. They appear to relate to head teachers' views about the purpose of PSE. As will be evident from data presented in the next chapter, these views appear to also influence organisational arrangements and perceptions of other school staff about PSE and how it is to be delivered. Comparing school PSE policy characteristics to observation data about physical school characteristics indicative of pupil participation and engagement as well as links to external agencies or individuals, some differences are apparent. Observation data from two of the four participating schools suggested visible evidence of HPS components (Elmhurst and St David's School). Whilst it was difficult to establish patterns across the data for the majority of schools, in St David's school the observation data about physical evidence of PSE integration and HPS-related elements seems in line with PSE school policy characteristics that are considered supportive of implementation (Fairclough 2003; Spillane et al. 2002). Differences among the four participating schools in terms of social disadvantage, academic achievement and associated characteristics of school catchment areas need to be taken into account. It has previously been noted that such setting characteristics can influence teachers' sense-making of pupil needs and how policies are to be enacted in the classroom in response to these (Spillane 2002). Interview

and focus group data may be able to examine the extent to which setting influences shape implementers' sense making of PSE policy.

It is apparent that school PSE policies reproduced a number of characteristics of the PSE framework documentation. However, the main difference was that they appeared to have paid more attention to clarifying in detail how school arrangements are to accommodate the policy through the distribution of responsibilities within the school. These similarities and differences between the Welsh Government's PSE framework document and school policies might be a reflection of ambiguity, lack of consensus, or a disconnect between the language used by policymakers and implementers. How national and local policy characteristics might influence implementation processes is evident from examining the views of implementers about the Welsh Government PSE framework and its local reproduction.

5.2.Implementers' perceptions of PSE policy

Interviews were conducted with implementers at local authority and school level in order to understand how the Welsh Government's PSE framework and school PSE policies were perceived and interpreted. Although the roles or responsibilities of local education authority (LEA) level coordinators in implementing PSE in schools were not clarified in the PSE framework documentation as for instance those of schools or teachers, coordinators at the LEA level draw on the PSE policy framework to promote its implementation in schools by training teachers, and by monitoring the quality of delivery in schools in their authority. In the majority of LEAs the PSE coordinator role has been assigned to staff whose main responsibility is the delivery of another PSE-related core subject such as PE or Religious Education, or who already coordinates the provision of pupil support services across the authority.

All participating LEA PSE coordinators had been teachers and were employed by the local education authority to support schools in

implementing PSE although their individual roles varied. One participant held a Development Officer role and provided advice and guidance on PSE, Religious Education, Healthy Schools, Eco Schools, Sustainable Development, Global Citizenship as well as school funding and newly qualified teachers across all secondary schools within the authority. This participant was responsible for the LEA within which Meadow- and Elmhurst School are located. Another LEA level coordinator was responsible for PSE in both primary and secondary schools, and the coordination of mental and sexual health outreach services in school and community settings across the authority. Oakwood and St David's School are located within this LEA.

One of the participating LEA coordinators was part of a larger network for supporting PSE and related education. She had sole responsibility for the delivery and evaluation of PSE in both primary and secondary schools across several authorities. Another two LEA level coordinators held similar roles which were to support PSE delivery and evaluation in primary and secondary schools within their authority. Despite these variations, all LEA level coordinators reported to hold responsibility for supporting the delivery and monitoring the quality of PSE in their authorities. Yet the extent of their actual involvement in schools remained unclear. Their roles did not appear to be reflected in the way in which participating schools supported the delivery of PSE or how it was experienced by pupils. There were no apparent LEA differences in the school data. As will be evident in the following sections, the organisation and provision of PSE seemed more continuous in Meadow- and St David's School than in Elmhurst- and Oakwood School.

5.2.1. Implementers' perceptions: Re-emergence of PSE policy characteristics

Views of implementers seem to reflect uncertainty about the provision, and ambiguity about the impact of PSE on learners that emerged from examining the characteristics of the PSE framework and school policies. It

appeared that the similarities and differences between local and national policies may have developed out of local sense making by school staff who had to ‘make do’ with ambiguities inherent in the national policy documentation. Although the supportive documentation includes a checklist for monitoring provision, it does not capture the impact of PSE on pupil outcomes. It appeared that in addition to schools’ self-evaluation of the outcomes of PSE, only Estyn inspections, taking place every 5-6 years, attempt to evaluate these outcomes.

Not knowing if one’s efforts are having the desired impact on pupils is likely to have an influence on how teachers evaluate their own abilities in delivering PSE (Leithwood et al. 2002). Such uncertainties may also contribute to a diffusion of responsibility among school staff, making PSE ‘nobody’s subject’: Specialist staff who normally teach examined subjects seem to not to feel responsible for PSE beyond delivering the content provided by PSE school coordinators, who in turn do not feel responsible for the lessons and their outcomes. Less uncertainty prevailed in examined subjects as there are measurable performance indicators that inform teachers about the outcomes of their work. This demonstrates the influence of the policy context on teachers’ sense making and re-iterates how assessment regimes designate priorities for policy implementation, which in turn, shape perceptions (Abbott et al. 2011; McCuaig et al. 2012). The uncertainty associated with PSE might reinforce the schools’ focus on grades:

It’s very difficult as you probably know as researcher to measure the impact of what you’re trying to do [...] that’s a big problem in PSE and that’s not one the Assembly [Welsh Government] gives good guidance to schools on cos if you read through their guidance lots of interesting stuff in there but very little on how supporting schools to understand how they can begin to measure the impact of what they do [...] OK you do provide a whole load of sex education lessons what difference does that make to young people? [LEA Level PSE coordinator]

In an effort to transform an assessment of the impact of PSE on pupils into more measurable indicators, schools use pupil feedback to evaluate PSE provision. According to the supportive documentation for PSE, pupil feedback is only one of several means to monitor PSE provision in schools, although the Welsh Government's framework considered the feedback from learners as *'a key source of evidence of learners' attitudes and wellbeing. It is also likely to be useful in evaluating the quality of teaching.'* (WG 2008). This provides another example of the Welsh Government's PSE framework and supporting documentation conveying different messages. However, LEA-level PSE coordinators criticized school staff for predominantly relying on pupil feedback to evaluate their PSE provision. They felt that pupil feedback was not an adequate reflection of provision or impact. One coordinator argued that the positive feedback from pupils might simply reflect their perception that PSE is 'free time' rather than 'actual work'. In particular PSE days do not require pupils to do any writing or bring books, and they are not given any homework to do:

filling in a form at the end of a PSE day saying I've had a cracking day today because you know why [...] if I was them and got out of all my usual lessons had no homework nothing to write all day fantastic I've had a great day. [LEA Level PSE coordinator]

This finding shows that the characteristics of PSE, in particular assessment procedures, seem to influence the status of the subject with pupils, parents and teachers and this resonates earlier findings. McCuaig et al. (2012) have previously argued for a legitimisation of health education subjects through the creation of characteristics that make them similar to core curriculum subjects, in particular through assessment processes.

In addition to uncertainty about specific evaluation procedures, school staff considered the overall PSE framework as somewhat ambiguous, broad and open to interpretation. One participant framed the flexibility implied in the framework positively, considering it as an opportunity to address issues for which there is no time within an otherwise restrictive policy context. A

greater level of flexibility and scope for interpretation was seen as facilitating practice:

I mean they're [referring to the PSE framework guidelines] very much open to interpretation but maybe that's a good thing because that helps me with what I've said with the comprehensive education system making giving restrictions and not allowing me to address... if you give me new orders which are a little more let's say flexible then I can do more [PSE coordinator at school level Meadow School]

This positive view of the flexibility inherent in the PSE framework stands in contrast to the general uncertainty it appears to introduce. Therefore, the very different ways in which this documentation is perceived might reflect a lack of clarity within policy documents (Spillane et al. 2002). For example, the lack of clear objectives could introduce uncertainty (Matland 1995). An interpretation of documents as providing flexibility that might otherwise be regarded as challenging and ambiguous might also be the result of differences in knowledge structures, expertise and views about teaching among professionals (Cohen et al. 1998; Wilson 1990). Whilst it was previously evident that school staff regard the PSE framework as ambiguous, broad or flexible, one LEA level coordinator felt that the Welsh Government PSE framework documentation provides a very clear guide for schools and teachers:

it's probably one of the best subjects that has been prepared for the new curriculum order it's got such a huge resource which backs it up on this site [...] with all the different documents the policies the audits contact people and everything you know really it's an idiot guide they can't go wrong so far as back up for staff is concerned this I think is a major asset to PSE [LEA level PSE coordinator]

This perception is in contrast with previously described criticism of the framework and supportive documentation. It also contradicts the views of those who felt that PSE continues to remain at the bottom of the pecking order. These views demonstrate how policy characteristics can influence

sense-making. But they also show how this influence might interact with intrapersonal influences, teachers' expertise, knowledge structures and views about teaching and what might be considered as helpful guidance for practice (Cohen et al. 1998). It is evident that implementers consider the pragmatic implications of policy characteristics, and highlight limitations that have not been accounted for by the Welsh Government's PSE framework and indeed school policies. School policies also showed a greater level of regard for what needs to happen in practice by detailing how school arrangements are to change in order to accommodate the delivery of PSE. It appears that ambiguities and uncertainties in both national and local policies may be related to a lack of clarity and specificity, a failure of taking account of what happens in practice during PSE policy development, and the fact that policymakers might use a language to represent practice that differs from the way in which professionals talk and think about it (Smit 2005; Spillane et al. 2002).

5.2.2. Implementers' perceptions of the PSE framework: influences of the policy context

Although some coordinators at local authority level praised the new PSE framework as raising the profile of the subject within schools and as providing helpful and detailed guidance, teachers and school PSE coordinators criticized the PSE framework for placing very challenging demands upon them. The fact that the delivery of PSE is a statutory requirement for schools was seen as having improved the status of PSE with teachers and schools. One LEA coordinator noted that PSE receives much more attention in schools and is seen as important as other subjects:

PSE is getting a much higher profile within the curriculum; it is seen as equally important as other curriculum areas, which is a huge huge step forward [LEA Level PSE coordinator]

This provides evidence for the influence of the policy context on perceptions. The fact that the delivery of the subject has been made statutory

was considered as having increased the status of the subject. Indeed, this change has introduced a characteristic that might make PSE more similar to core curriculum subjects (e.g. McCuaig et al. 2012). Although respondents acknowledged the importance of what PSE seeks to achieve many said that practice looked different.

Alongside a number of other characteristics that set PSE apart from curricular subjects, guidance for assessment of the subject was vague and ambiguous, and the curricular time spent on delivering the subject was not felt to be contributing to the graded performance of core curriculum subjects. As a result, PSE appeared to be considered as having a lower status than examined subjects, by teachers, pupils and parents and it was evident from different data sources that this ‘subject pecking order’ filtered through every level of influence on policy sense making. The semi-statutory status of PSE in particular was seen as contributing to this. Although the delivery of PSE is a statutory requirement for schools to fulfil, the implementation is not regulated in any way and the framework only provides guidance. One participant noted that the publication of the new framework was a missed opportunity for making the full framework a statutory requirement as this would have enhanced the status of PSE within schools:

I think it's a shame that it's still a framework and I think there was great opportunity with the curriculum 2008 to make it even a national curriculum subject or to make the framework statutory you know we know that schools are being inspected to the framework but we know it's not statutory. Sorry we know the framework is not statutory, PSE is statutory. [LEA level PSE coordinator]

LEA level PSE coordinators were the only participant group that explicitly referred to the ambiguity inherent in the PSE policy framework's semi-statutory status, which was seen as leaving implementation at the discretion of schools. This discretion was regarded as reinforcing the prioritization of examined subjects:

Obviously there's no requirement for them to arrange a timetable or curriculum in a particular way is there in secondary schools they have autonomy to do as they wish. [LEA level PSE coordinator]

These views provide examples for the influence of the policy context and policy characteristics on perceptions, in particular the ambiguity left within the PSE framework about the way in which PSE is to be implemented. It has previously been found that such ambiguities could lead to uncertainty and unwanted analogies between desired and existing processes. Incomplete or superficial implementation might be the result of such unwanted analogies (Fullan 2001; Gentner et al. 1993). Further indications for the ambiguity of the PSE framework were the views of school staff who saw the PSE framework in very contrasting ways. School level coordinators at St David's and Oakwood School described it as too broad and placing very challenging obligations on schools and teachers. Classroom teachers at Oakwood and Meadow School felt it is too rigid and narrow, shoehorning pupils' development of life skills into curricular teaching. Indeed, it was felt that the teaching of life and social skills contradicts ordinary school lessons. The transformation of such tacit knowledge into didactic teacher talk that is delivered and tested in the confines of a classroom setting may provide pupils with relevant facts. The creation of the subject PSE with characteristics similar to main curriculum subjects might fit into existing curricular arrangements. However, the delivery of PSE in this format may not help pupils develop appropriate skills. One of the LEA level PSE coordinators (St David's and Oakwood School) voiced similar concerns. Classroom teachers at Meadow- and Oakwood School criticized PSE as very uniform, assuming all pupils will benefit in similar ways from the framework. These views suggested that the requirements of the PSE framework and contradictions within it make it difficult for teachers to respond to learners' needs. These are likely to create frustration if teachers feel the lessons they deliver are not necessarily beneficial to pupils:

*The pupil is being forced into a hole they don't fit into you know.
[Classroom teacher, Oakwood School]*

It has previously been found that if school staff perceive reforms in such a negative way and as differing from their own goals and views of teaching this can lead to disillusionment (Leithwood et al. 2002). In addition, the scope of the framework was considered as too broad to become fully implemented. Responding to the entire framework by wanting to cover the full recommended range of topics adequately is challenging if it has to be tailored to a very diverse group of learners. Particular concerns were raised in relation to sex education, where it is necessary to ensure a whole class equally benefits from the lesson whilst adequately responding to differences in learners' needs. Particularly in year 7 there can be considerable differences between pupils in the same class: whilst some pupils are very mature or may even be sexually active, smoke, drink alcohol or use drugs, other pupils may not. School level PSE coordinators find it therefore difficult to appropriately pitch the content of the framework whilst ensuring that all of the recommended topics are covered:

It's a ridiculously huge order I think the framework just covers so much each year [...] you have the extreme in each year you have some kids who are grass green naïve and then others have been round the block seven times you know you've got to you know such a breadth of information a lot of them are taboo subjects you know it's a bit of a it can be quite challenging. [School level PSE coordinator, St David's School]

This illustrates yet another view of the framework, illustrating how professionals' knowledge structures and views about teaching might shape the way in which policies are perceived (Cohen 1990; Wilson 1990). The separation and formalisation of PSE as a school subject appears to undermine its potential benefit. Specifying that pupils are to be developed personally within the confines of a curriculum subject appears to create a separation between what previously was considered a normal part of teachers' role: teaching pupils a formal subject whilst informally supporting and developing them. The separation of personal and social development through the designation of PSE as a discrete subject appeared to influence how teachers may perceive their role. They consider it as their job to teach

their specialist subject themes whilst everything covered by PSE is taken care of by those officially made responsible for it. This specialisation and socialisation appears to make PSE ‘nobody’s subject’, creating a barrier to the integration of PSE across the curriculum:

Developing young people should happen every day, not in discrete lessons, it should be every single day that you’re developing a young person as an adult and equip them with things that they are gonna need not just one day this is your PSE day today we’re gonna teach you how to survive when you leave school it’s rubbish done up [...] [Classroom teacher, Oakwood School]

The consideration of PSE as such a separate entity seems to contradict views of good practice, and illustrates how views of policy can be shaped by intrapersonal influences (Leithwood et al. 2002). Implementers’ perceptions of these ambiguities and limitations of the PSE framework showed professional patterning, determined by differences in their proximity to classroom teaching. Whilst LEA level coordinators and head teachers did not refer to limitations of the PSE framework, views held by classroom teachers and school level PSE coordinators highlighted a number of policy limitations. In particular they referred to its breadth as challenging, as well as the contradiction between PSE as a designated school subject and the practical life skills it seeks to convey. Such limitations seemed to have become apparent through the practical experience of attempting to put the PSE guidance documentation into practice and incorporating it within the on-going school curriculum on a day-to-day basis.

5.3. Chapter summary

The PSE policy framework documentation produced by the Welsh Government appeared limited in its ability to provide a clear guidance for teachers, school coordinators and head teachers. The aims of the framework were challenging, broad and unspecific. Ways to achieve these aims through classroom processes were left to implementers’ discretion, as were

organisational arrangements to facilitate the delivery of PSE. It has been found that such policy characteristics can lead to uncertainty (Spillane et al. 2002). Those with key responsibility for implementing the PSE framework have been portrayed as passive recipients of instructions, and their role in the implementation of PSE described using passive voice. This discursive feature within policy documents has been found to contribute to professionals feeling disengaged from the implementation process (Fairclough 2003).

PSE policies that were produced by each of the four participating schools were examined to understand the extent to which they reproduced characteristics of the Welsh Government's framework documentation. Similar to the framework, the aims and objectives of the PSE programme were largely written in the form of bullet points, using the text from the PSE framework document. The limited extent to which school policies concerned themselves with classroom activities or pedagogic processes reflected the sporadic guidance provided in the PSE framework. However, schools did make an effort to clarify how organisational arrangements are to change in response to the policy, carefully specifying the distribution of responsibilities. This was particularly evident in school PSE policies produced by Meadow- and St David's School, which contained organisation-specific information about who is responsible for which aspect of PSE. Details about relevant organisational arrangements within the school PSE policies of Oakwood and Elmhurst School were similar to those within the Welsh Government's PSE framework document.

Limitations of the national- and school-level PSE policies resonated in perceptions of implementers. The flexibility of the PSE framework guidance document was seen as both an advantage as well as a barrier to its full implementation. This finding supports earlier arguments about the uncertainty created by policy documents that lack clarity (Spillane et al. 2002). There were differences in how LEA level coordinators, head teachers, school level coordinators and classroom teachers viewed the PSE policy documentation. Whilst some LEA level coordinators saw the PSE framework as a comprehensive guidance that enhances the status of PSE,

particularly one (Oakwood and St David's School) was more concerned about the practical implications of delivering PSE and highlighted its limitations. This might be due to a greater concern with or proximity to practice, as it was also evident from the way in which school level coordinators and classroom teachers reflected on the shortcomings of the framework and their pragmatic implications. None of these limitations were mentioned by head teachers who appeared less involved in day-to-day classroom practice. It was evident that these differences in perceptions were influenced by work contexts and related experience, knowledge and skills (Cohen et al. 1998). A lack of guidance for evaluating the provision and the impact of PSE contributed to uncertainty and the view of PSE being of low status with pupils and teachers. The importance of assessment regimes in establishing the status of a subject has previously been emphasized (McCuaig et al. 2012). A further key limitation for the effective implementation of the PSE policy appeared to be its 'semi-statutory' status, which implies that the delivery of PSE is a statutory requirement for schools whilst the format of delivery and organisational arrangements remain at the discretion of individual schools. This discretion was seen as devaluing and marginalising PSE in relation to core curriculum subjects. Designating PSE as curricular subject in which life skills are taught but not assessed was seen as making it 'nobody's subject' whose effect on pupils' lives remains uncertain. This observation relates to earlier arguments suggesting that dissimilarities between main curriculum subjects and health education seem to imply a lower status of the latter (McCuaig et al. 2012).

The way in which PSE policy shaped practice was not only determined by its characteristics and how they were re-produced and perceived by implementers. As this chapter has shown, sense-making of policy and resultant practice was also influenced by the wider context of policy implementation. These include competing national policy priorities, organisational arrangements, social interactions among people responsible for the implementation as well as their perceptions of PSE policy. These in turn are shaped by peoples' individual characteristics. The impact of these influences on how implementers see practice is explored in the next chapter.

CHAPTER 6 Situated sense-making of the PSE framework and local school policies

Drawing on interviews with LEA level PSE coordinators and staff at the four participating schools located within two LEAs, this chapter aims to understand situated sense-making processes of national and local PSE policy documentation. It seeks to examine how policy level influences were re-contextualised in head teachers' decision-making about organisational arrangements, as well as in the intrapersonal determinants of sense making processes. Despite the variation among LEA level PSE coordinators' roles in supporting PSE in their authority and the differences between the four participating case study schools in terms of how PSE was seen and implemented, the influence of policy context characteristics were universally agreed on. Participants' views suggested that a focus on GCSE exam grades, the introduction of a working time agreement, school inspection regimes, limited availability of training, a comprehensive education system and other legislative restrictions, appear to influence situated sense making.

Head teachers' decision-making seemed to shape organisational arrangements and this was evident in timetabling, the allocation of funding and staff to PSE, the provision of opportunities for training as well as the creation of space and time for teachers to collaborate. For example, head teachers at Meadow and St David's School considered the purpose of PSE as encouraging pupils' development of skills. As a result the organisation and provision of PSE at these schools appeared more continuous with dedicated staff delivering the subject on a regular weekly or fortnightly basis. In contrast, head teachers at Elmhurst and Oakwood School regarded PSE as complementary to the main curriculum, unimportant or as compensating for pupils' negative experience in a disadvantaged catchment area. PSE provision seemed less continuous at these schools with only a minimum of time and funding allocated to the subject or an attempt to demonstrate fulfilment of PSE requirements through other activities. Such

arrangements seemed to affect intrapersonal level influences that re-emerged in professionals' perceptions about the purpose of PSE, the role of pupils and teachers within the delivery of the subjects and views about how it is to be enacted in practice, in the classroom.

6.1. Policy context level influences on situated sense-making

It appeared that a focus on graded exam performance had the most important influence on participants' sense-making of PSE policy and subsequent implementation. The predominance of exam results was evident across all datasets collected, and was directly and indirectly evident in how the PSE policy framework was reproduced or interpreted at all levels of implementation: LEA level PSE coordinators, head teachers, school coordinators and classroom teachers. Grades are a competing priority that has not been considered in the PSE framework documentation, but one that has been recognised by respondents at all levels involved in the implementation of PSE policy:

Bottom line for secondary schools is it comes down to your five A -C GCSE scores [...] A level results if you're a sixth form school so you know that's by far the biggest indicator how good your school is. [LEA level PSE coordinator]*

Even an explicit emphasis on pupils' personal and social development being central to their achievement and PSE having become a statutory requirement were considered as unlikely to change schools' focus on performance. This prioritization of grades reflects earlier findings from evaluations of PSHE in England and health education elsewhere (Formby 2011; McCuaig et al. 2012; Whitty 2002). As noted earlier, these LEA level coordinators had been secondary teachers in a subject related to PSE. They represented not only the interests of local authorities but spoke from the context of multiple responsibilities for policy implementation and previous teaching experience, which varied between individual participants. Drawing on such an extensive teaching experience in secondary schools as well as several years of

working with schools to implement the PSE policy, the majority of LEA level coordinators recognised that examined subjects will continue to be a priority over the delivery of PSE:

Ultimately in secondary schools there's always going to be this thing they're always going to be judged they're always going to be benchmarked against your results [LEA level PSE coordinator]

The pressure to prioritize examined subjects did not only exist in its own right. It was exacerbated through the way in which exam results determine the schools' reputation with parents and staff. At the time of data collection individual school results were not published, yet schools were aware that their performance is known:

Of course we don't have league tables in Wales but you kind of do it through the back door and everyone knows about what the school results are [LEA level PSE coordinator]

Schools experienced additional pressures through the introduction of a working time agreement one year after the 2008 PSE framework. The agreement specified how many hours teachers will be required to work and limited the opportunities for schools to ask teachers to cover colleagues' time during sickness absence or training. As a result, schools would need to pay for external cover teachers in order to enable staff attending training. The allocation of such funds was likely to focus on examined subjects, potentially marginalising resource provision for PSE:

They [teachers] have to be there and to deliver their timetable basically and to work their set number of hours and everything, but the thing is there is not really any scope [...] If they had a non-teaching period and a colleague was either on a course or off ill [...] there's usually a local agreement within the school that perhaps out of those five or six you may be asked to cover maybe half of those but there's new legislation coming in from this September to say that teachers will not be asked to cover so immediately then that's gonna

be so much pressure on schools because they haven't got an unlimited pot of money to bring in cover teachers all of the time. [LEA level PSE coordinator]

This reflects the prioritization of curricular subjects over health education or PSHE observed elsewhere (Formby 2011; McCuaig et al. 2012). It also shows how responsibilities and specialisation within schools, or the separation among subject specialists which appears exacerbated by the working time agreement, may affect the implementation of PSE (Bernstein 1999; Rowe 1993; Whitty 2002). An additional influence of the policy context of PSE were Estyn inspections, carried out every five or six years to ensure schools comply with a certain set of quality standards. These national standards require written evidence of pupil work, reinforcing a focus on worksheets and forms in lessons, marginalising opportunities for discussions. Worksheets, however, were regarded as ‘flipping awful things’ teachers use to ‘hide’ behind to create protective boundaries around pre-determined topics to be discussed within the lesson. It was noted that these encourage the production of ‘written evidence’ which was seen as a preferable option for teachers to facilitating discussion based work:

Obviously Estyn are looking for some kind of evidence as well in terms of what is going on in classrooms to that tends to suit the people who are doing some work on paper rather than just discussion work or rather than assessment for learning work. [LEA level PSE coordinator].

These arguments show how the prioritization of core curriculum subjects, encouraged by the wider policy context, penetrates and influences practice. As described by Bernstein (1990) such contexts have the potential to shape performance focused pedagogic practice, classroom processes that are focused on conveying knowledge and facts that are to be reproduced at examinations. The majority of lessons taught within secondary schools are focused on conveying facts. This is what teachers have practiced over many years and are comfortable with, and therefore attempts at delivering PSE in a different way may be rare. Lesson observation data from the four

participating schools, which will be presented in Chapter 7, suggests a preference for delivering fact-focused lesson processes. In addition, it emerged that the initial teacher training in Wales may not provide sufficient preparation for teachers to adequately deliver PSE. Anecdotal evidence collected in March 2010 by means of informal discussions with trainee teachers suggested that they felt insufficiently prepared through the education they receive. Formal college-based training is mainly focused on their specialist subject, such as English, Maths or Welsh. Practical experience in schools as part of the initial teacher training is dominated by work around their specialist subject and the exposure to PSE is minimal. Trainee teachers explained that one of their biggest anxieties when starting out in schools was to be allocated to teach PSE. Not only did they feel that they lack the pedagogic skills to manage class discussions effectively, they were also concerned that they may be embarrassed should pupils ask difficult questions. These experiences were reflected in LEA coordinators' views about the inadequacy of PSE-related teacher training:

I still think there's a huge void in terms of initial teacher training and how much input they actually get on personal and social education [...] what could be more influential is you know in terms of initial teacher training if there was more input in general on personal and social development but sadly that doesn't happen [LEA level PSE coordinator].

This view shows the importance of knowledge structures highlighted earlier (Spillane 1998). A lack of training and preparation of teachers for delivering PSE retains uncertainty about delivering lessons appropriately and leaves room for a performance focus to dominate practice. Indeed, there appears to be a limited availability in Wales for initial teacher training to adequately prepare for PSE:

Originally I wanted to do my PGCE in PSE but there isn't anywhere in Wales where you can study that the closest was Bristol and obviously as a mother and wife with two kids I wasn't able to do that so I chose RE because I felt it was the closest thing to PSE just

because of all the issues that come up in RE very similar from you know attitudes morals values and so on [School PSE coordinator St David's]

In contrast to PSE relevant components in initial teacher training, relevant continuing professional development appears to be available to qualified teachers. However, due to competing curricular pressures it seemed that particularly secondary schools are reluctant to offer opportunities for developing teachers' PSE-related skills:

We've done loads of INSET⁵ days on PSE in primary schools hardly any in secondary schools on PSE you know they won't give it the time [LEA level PSE coordinator].

This view provides a further example of the way in which the prioritization of curricular subjects shapes resource allocation, which has been identified in previous research (McCuaig et al. 2012). It also suggests that head teachers might be reluctant to dedicate time and resources to subjects they consider more important than PSE (Abbott et al. 2011). Another contextual influence on situated sense-making of PSE seemed to be the restrictions on what teachers regarded as good practice. A plethora of legal and statutory obligations reflected in schools' health and safety and child protection policies were perceived as restricting practice beyond common sense approaches to protecting children. Such restrictions appeared to contradict what teachers perceive as beneficial for pupils, such as valuable hands-on experiences during lessons:

I'd love to go out and take the kids out and about into the woods like lets chop that tree down let's cut it down let's have a look at what's inside and make something out of it how brilliant is that [...] can't do it though I got to do little tiny rubbishy jobs because there's so many constraints put in the way if you think how much kids would get from that, not just going out to the woods but the sort of whole

⁵ INSET refers to IN-Service Training

thing about that and what you could learn from that it's amazing.
[Classroom teacher, Oakwood School]

These views appear to reflect an imbalance among different teachers' professional identities, caused by competing policy demands and restrictions that are incompatible with what is regarded as beneficial for pupils (Volkman and Anderson 1998; Connelly and Clandinin 1999). Drawing on their experience of day-to-day classroom teaching as well as wider responsibilities for coordinating practice, school staff appeared to struggle to maintain a balance between policy requirements and pupil needs. This leads to a challenging agenda for teachers to fulfil, thereby leaving limited flexibility to respond to individual learners' needs. For example, the characteristics of the schools' catchment area seemed to shape teachers' perceptions of the different pupil needs they have to address. The comprehensive curriculum was seen as unable to accommodate these differences, which creates tensions at school level:

We have a comprehensive education system but children aren't comprehensive, children are different within different catchment areas. You may have a big core of children for example because of social economic factors these children themselves might be more leaning towards different activities but the government is saying right well in all comps we have to be doing all of this but it might not be suitable for the children in this catchment area so I think one of the biggest things, biggest problems I think we have is the comprehensive curriculum cos sometimes encouraging them to have to do everything and you don't have the type of child that responds to that and you still have to do it that could be a problem
[Classroom teacher and school level PSE coordinator, Meadow School]

It appears that policy level influences create tensions at several levels by failing to take account of local practice and teacher knowledge (Smit 2005). This statement illustrates how the inflexibility of the wider school curriculum poses a challenge to everyday school practice. It resonates views

mentioned earlier suggesting that the breadth and the scope of the PSE framework make it difficult to appropriately deliver it to a diverse group of children. These findings suggest that the context in which schools are expected to implement PSE poses a number of challenges, which were not recognised in the policy documentation. A predominant focus on performance in examined subjects appeared to be reinforced through informal and formal mechanisms, including restrictions on teachers' workload. Initial teacher training for PSE was considered inadequate, whilst PSE-related professional development that is offered is taken up by secondary schools to only a limited extent as their priorities lie with examined subjects. A variety of restrictions on practice add to the pressure teachers are under, and limit their opportunities to deliver what they regard as most beneficial to pupils. Some elements of these policy context characteristics, in particular a focus on exam performance, seemed to shape head teachers decision-making about organisational arrangements. These are discussed in the next section.

6.2. Policy context level influences on head teachers' decision-making about organisational arrangements

Power relationships in schools, particularly head teachers' views about PSE and related decision-making, appeared to influence staff attitudes towards PSE. These differed between the participating schools. Head teachers in Meadow- and St David's School were committed to supporting PSE within their school. They viewed the purpose of the subject as focussing on encouragement and involvement of pupils as well as fostering the development of important skills in pupils. These head teachers believed that there should be one person within the school who is responsible for coordinating the delivery of PSE and for advocating the subject to other staff. Accordingly, there was one member of staff at Meadow School who delivered the subject to pupils across the whole school on a regular basis. Her views reflected very positive attitudes towards PSE and a certainty that the themes she covers are very important to pupils' lives. She explained that

she knows her pupils well and is therefore able to address individual needs and tailor her teaching to the diversity of abilities and skills in each class. The PSE coordinator at St David's School was described by the head teacher as someone who is very committed to PSE and very skilled in getting other staff to contribute to the subject. This PSE coordinator saw PSE as facilitating and supporting pupils in their own development and explained that this is achieved through discussion and interaction during lessons. It was evident that she cooperates closely with classroom teachers who deliver PSE to pupils on a regular basis. In line with these findings from interviews with school staff, pupil focus group and lesson observation data presented in Chapter 7 indicates continuity of PSE provision in Meadow- and St David's School.

These observations differed from those made about arrangements at Elmhurst- and Oakwood School. Head teachers at these schools saw PSE as a way of compensating for pupils' negative experiences within a socially disadvantaged catchment area, a means for providing support and continuity that is otherwise not available to them, or simply as a subject that will remain at the bottom of the 'subject pecking order' and that will continue to fill gaps that curricular subjects are unable to address. Views of PSE coordinators at these schools were very similar to those of head teachers, reiterating the role of PSE as compensating for inconsistency pupils might experience at home or that PSE seeks to compliment main curriculum subjects. At Elmhurst School the teaching of PSE was allocated to form teachers or other members of staff who were available regardless of whether they know the pupils they teach. Classroom teachers' views were predominantly concerned with attendance and discipline, focussing on how lessons are delivered to ensure they retain interest and entertain pupils. At Oakwood School all members of staff were allocated to delivering sessions in a carousel-like arrangement for PSE days during which the normal timetable was suspended. The PSE coordinator at this school emphasized the importance of creating interesting lessons to ensure pupils attend. As a result of these arrangements, classroom teachers at Oakwood School did not see PSE as their responsibility and regarded it as dissociated from the

curriculum and pupils' lives. Lesson observation data presented in Chapter 7 indicates the content and processes of PSE sessions delivered at this school seemed in line with staff attitudes.

These different patterns indicate the extent to which head teachers' views and associated decision-making might influence the attitudes of staff and consequently practice. Thus if head teachers considered a focus on PSE as important, they arranged for appropriate resources to be allocated to the subject and provided leadership that fosters an organisational culture that encourages staff to primarily focus on pupils' personal and social development rather than exam results.

It's about the mentality of the leadership of the school and what their vision is and what they see as important and the way they then present it because they have to counter this kind of results culture that we have in education in this country. [LEA level PSE coordinator]

The central role of head teachers in shaping school culture has previously been acknowledged (MacBeath 2008). School culture, motivated staff and strong leadership have been identified as very important in the implementation of organisational arrangements to facilitate changes to curricular programmes (Erb 2006; Yecke 2006; Whitley et al. 2007; Viadero 2008; Weiss 2008). It appears that head teachers' views of PSE are central to how the subject is seen within the school and the extent to which its delivery is supported. This observation is in line with previous findings, which indicated that head teachers' decision-making can be the most important barrier to policy implementation (Abbott et al. 2011). Whilst recognising the value of what PSE lessons aim to achieve, two out of the four participating head teachers also noted that the focus of their school remains on exam performance and indicated how this prioritization affects practice, separating PSE from the main curriculum. Rather than describing it as an integral part of provision, the choice of words in the following extract implies a separation between teaching for exam performance and promoting

pupils' personal and social development through adequate PSE lessons as proposed by the framework:

They [referring to themes to be covered in PSE lessons] are really important but as a school we also have a duty to educate and to get youngsters through exams and all the rest of it [Head teacher, Oakwood School]

Such emphasis on examined subjects and the low priority given to PSE and the challenges associated with this prioritization or 'pecking order' that influences resource allocation, were seen as unlikely to change:

[...] I don't think the difficulties will ever gonna particularly go away because we will never be giving as much time to PSE as we are to the study of English or French or Geography or whatever it might be and therefore in the school environment things got to have a bit of a pecking order so you got your subjects [gesturing] at the top and then you have your other subjects and a lot of that is based on how much time gets put into those things and therefore PSE tends to come down here at the bottom [...] [Head teacher Oakwood School]

Resource allocation involves not only timetabling and budgeting for certain subjects, but also the allocation of suitably qualified staff to deliver lessons. One of the four participating head teachers noted that usually, after examined subjects have been scheduled, PSE is assigned to teachers who have availability on their time table rather than to those who may wish to teach PSE and who are suitably skilled. This was noted to impact on practice:

Last thing that gets timetabled is things like PSE so if you've got lessons where you have to fill with certain teachers you tend to get the teachers that have got extra on their timetable rather than ones who want to do the subject [...] and this is again one of the problems we used to have is we had a hotchpotch of teachers so the PSE coordinator would have a lot of disinterested troops [Head teacher, St David's School]

It has been noted that these ‘disinterested troops’ tend to be newly qualified teachers with more time available on their schedule, who feel less confident delivering PSE than more experienced staff. The negative impact of such an allocation on practice was also emphasized by LEA level PSE coordinators, and was related to PSE not fitting into teachers’ understanding of their professional practice. These points illustrate the impact of head teacher’s decision-making on school arrangements and staff motivation, which create an important context for the implementation of policy in schools (Erb 2006; Yecke 2006; Whitley et al. 2007; Viadero 2008; Weiss 2008). Indeed, school staff recognised the need to encourage continuing professional development to enhance PSE provision, however they were also aware that the allocation of time within the school to do such training also follows the ‘pecking order of subjects’ which predominantly supports examined subjects:

We could probably all do with a lot of training on how to deliver things like PSE effectively and that isn’t something we’ve had any training [...] which is simply due to the pressure of all the other things that we’re trying to do it gets pushed to the bottom of the list [...] where we have training in teaching methods it tends to be generic [Head teacher Oakwood School].

As noted earlier, head teachers’ decisions to prioritize funding allocation to examined subjects might leave limited resources for PSE. In some cases it might even be uncertain if there is a budget to pay for the copying of worksheets or purchase adequate resources and equipment for delivering PSE. This resonates similar resource issues as a result of head teachers prioritizing core curriculum subjects, which have been identified elsewhere (Abbott et al. 2011; McCuaig et al. 2012). Such limitations are likely to influence the extent to which teachers feel able to deliver PSE adequately, especially if they are meant to promote pupils’ development of ICT skills:

Not all classrooms have actually got access to computers and multimedia projectors and which is really quite incredible. [LEA level coordinator].

However, even if funding is limited, having a senior member of staff who is committed to the subject may be important in facilitating good quality provision. School-level PSE coordinators described ways of ‘making do’ with such very limited budgets by being creative and collaborating with other experts within and outside the school:

[...] our budget in the school is very very small and we're struggling big time at the moment. Sometimes you get free stuff on the internet but I'm quite new doing that so I have had, I've got packs there now that they've sent me which is free, I'm always looking for something that's free and I'm always looking for people that don't cost me any money to come in. Sometimes they do charge like the RNLI, I mean we're going to pay him cos he's freelance. So otherwise we pay very very few. We have got a programme that's called cascade for year nine, they actually go on there looking at careers choices and we have to pay hundred pound a year to have that licence, so with the PSE money I've got to be very very careful cos it is small, very small. If I need new DVDs they're expensive and there's lots of teaching resources out there but once again you're talking about big money. So I sometimes, well I sometimes look for free stuff, look for things I've got and change them. Debbie⁶ now, the lady in charge of ICT, to save on money instead of having five CDs to be played she'll actually put them on the net so you can access them through PowerPoint [...] [PSE coordinator Elmhurst School]

It has been explained in Chapter 5 how the ambiguity related to the delivery of PSE not being statutory leaves the organisation and delivery of PSE at the discretion of schools. Staff at Oakwood- and Elmhurst School appeared to retain their focus on examined subjects and regard PSE as add-on that is being delivered in spare timeslots such as a series of morning assemblies or dedicated PSE days to be able to ‘tick boxes’ to indicate PSE is being provided. Staff at Meadow- and St David’s School, however, seemed to try and fully implement the framework by covering all recommended aspects. The commitment to PSE seemed to reflect head teachers or leadership teams

⁶ Name changed

considering the subject as centrally important to their learners' wellbeing and as a pre-requisite for learning. This observation is in line with previous arguments suggesting head teachers might have a significant influence over the success of implementation processes by shaping an organisational culture and context that is in support of the policy (Kasili and Poskiparta 2004; Watkins et al. 2008). However, the main barrier for PSE was seen as the hectic life in schools which hardly leaves time for considering PSE, a view that was evident in views from across all stakeholders:

Life is just at a gallop in a school and you know you just go from one day to the next thank God that you sort of managed to survive in many respects [laugh] [LEA level coordinator].

Such time limitations are likely to influence teachers' views of their practice and pupils' experience. In order to accommodate large numbers, secondary school arrangements usually require pupils to move from subject to subject, room to room, teacher to teacher. If such arrangements are disconnected, teachers are unable to collaborate with one another and rotating timetables are poorly coordinated, there is a likelihood that pupils will experience a repetition across their school day, not only in terms of topic coverage but also in terms of the pedagogic approaches used. Therefore, such arrangements could potentially lead to pupils' disengagement:

I think the danger is in secondary [schools] is as the children are moving around you're only planning for your class so if a young person makes five changes over five lessons they might end up with the same teaching styles throughout the day they could have a chalk and talk lesson in English one in Maths one in Science and it's no wonder young people can become disaffected. [LEA level PSE coordinator]

The recognition that fact-focused lesson talk might negatively impact on pupils' perceptions of lessons reflects earlier findings (Bernstein 1990). It demonstrates the interaction between policy requirements, school organisational arrangements, and lesson processes which are shaped around exam performance. It also suggests that such arrangements might provide few opportunities for teachers to engage in social sense-making by

collaborating with colleagues, an important process within school policy implementation (Brown and Campione 1996; Spillane and Zeuli 1999). Spillane et al. (2002) explained that such ‘egg-carton’ structures in schools can isolate individuals’ work, separate subject specialists from one another and lead to structures in which goals and priorities vary between different elements of the system (Hayes et al. 2006). According to Pedder and MacBeath (2008), such arrangements can create a key barrier for schools implementing innovative pedagogic approaches, an argument which has been illustrated by findings from school staff interviews. The findings from school staff interviews demonstrate how the practical implications of prioritization, that shaped head teachers decision-making, emerged in timetabling and budget allocation within the school. These determine structuring and organisation of a context within which teachers make sense of and implement PSE policy. Placing PSE at the bottom of the ‘pecking order’ within the organisation is likely to influence staff attitudes towards the subject, and consequently the proportion of effort and time dedicated to preparing for the delivery of PSE. The extent to which policy priorities re-emerged in intrapersonal influences on policy implementation will be examined in the next section.

6.3. Policy context influences on intrapersonal determinants of policy sense-making

It seemed that timetabling arrangements affect the extent to which the staff responsible for delivering PSE are likely to be committed and interested, reflecting intrapersonal determinants of sense-making. These may impact on the quality of provision. The development and consolidation of subject specialism through school arrangements that prioritize examined subjects provides one example. Teachers who are subject specialists spend the majority of their time delivering ‘their’ subject in order to optimise the quality of examined subjects. If schools use what is called a specialist model to delivering PSE, teachers will be asked to deliver 5 PSE lessons out of the 50 lessons they deliver across their two-week timetable. They are therefore

unlikely to develop expertise in relation to PSE or given the opportunity to attend relevant training:

I run a central in service training programme there are increasing issues in terms of actually getting teachers out on courses. A lot of schools have sort of very limited funding for actually supporting the training of teachers and given the fact that the PSE coordinator will almost certainly be a subject specialist you know for another area then inevitably if they've been told by the school you know you can only go on one or two courses this year. [...] If they're delivering an exam course or you know there is a change in the curriculum I can understand why they you know why they would go there [LEA level PSE coordinator].

It appears that the prioritization of resources, which is focused on core curriculum subjects, is further implicated at the intrapersonal level, reflecting earlier findings (McCuaig et al. 2012). It further illustrates how organisational arrangements in schools create and reinforce structures in schools that separate subject specialists from one another (Spillane et al. 2002; Hayes et al. 2006). The data also demonstrates that head teachers decision-making may also impact on teachers' knowledge structures and views about practice by influencing the access to training related to PSE. This observation reflects earlier findings about the influence of head teachers' decision-making on policy implementation in schools (Abbott et al. 2011). LEA PSE coordinators' views reflected experiences both from their professional background as teachers as well as their wider responsibilities for policy implementation within the authority. Drawing on their professional background as teachers and their experience from promoting the implementation of PSE in schools, LEA level PSE coordinators' views indicated how subject specialisation within schools emerges in teachers' socialisation into subject roles:

We're all guilty of it I used to be an RE teacher and PSE teacher and you went in and you picked up your syllabus and you taught your RE and you taught your PSE [LEA level PSE coordinator]

Since PSE lessons make up only a minority of hours within teachers' timetable, their sense making and resulting practice is evidently dominated and shaped by their own specialist subject. This view provides an example for the importance of knowledge structures and pedagogic skills in shaping policy implementation, which has previously been noted (Cohen 1998). A change of organisational arrangements by one of the participating schools was found to enhance provision by altering the timetabling approach. Members of staff were asked whether they wished to teach PSE. Those who volunteered were then allocated to the subject whilst the remainder of the timetable was built around these preferences. Such bottom-up arrangements appear to be more likely to be in line with teachers' views about their own practice, skills, abilities, and confidence in teaching PSE. According to the head teacher of this school, these arrangements resulted in a higher quality practice in comparison with traditional arrangements. In the majority of schools, experienced subject experts are primarily allocated to exam subjects, whilst junior members of staff are assigned to PSE regardless of their preferences. These arrangements can result in a lack of enthusiasm and poor practice. The allocation of motivated staff to teaching PSE seemed to be a promising approach, which was also reflected in how lessons were delivered. This observation is in line with earlier findings, highlighting the role of leadership and motivated staff in initiating changes to curricular programmes (Erb 2006; Yecke 2006; Whitley et al. 2007; Viadero 2008; Weiss 2008). Indeed, as evident from Chapter 7, lesson processes that were observed in St David's School facilitated more interaction among pupils and employed more competency-focused pedagogic approaches than in any of the other case study schools:

We actually have specialists delivering it, people who really want to do PSE, and that of course surprise surprise means the lessons are actually pretty good. [Head teacher, St David's School]

This view is in accordance with earlier arguments, suggesting policy implementation becomes more successful if reforms and new practice is in line with existing practice, and is perceived by professionals as beneficial (Leithwood et al. 2002; Matland 1995; Tickle 2000). Teachers' perceived

responsibility towards delivering PSE appears to be strongly influenced by the way in which the subject is seen within the school. Head teachers' encouragement of school staff to embrace the delivery PSE, supported by the allocation of funding and other resources, seems to impact on staff attitudes and enthusiasm for the subject. In schools where PSE tends to be placed at the bottom of the 'subject pecking order' staff may consider the subject as less important, especially if it is portrayed as separate from the curriculum rather than as an integral part:

Because PSE is treated as a separate entity I'd leave that to the PSE teacher [Classroom teacher Oakwood School]

This finding demonstrates the interaction between organisational and intrapersonal level influences on policy implementation. The separation or alienation of PSE within organisational arrangements leads to some teachers not feeling responsible for PSE. It further shows that PSE policy characteristics seemed to have been less successful in creating links to existing schemata held by school staff. A failure to link new policies to existing processes has been found to make successful implementation less likely (Star and Griesemer 1989; Matland 1995). Missing links between PSE and existing practice were also evident in the organisation of topics and subjects. The structures within schools, aligned to timetabling that prioritizes examined subjects, appear not to encourage collaboration among teachers about delivering PSE. Time limitations seemed to be a barrier to better coordination, not just in terms of lesson processes across the day, but also in terms of topic coverage, which can lead to overlaps or repetitions. For instance, human development could be covered in Biology, whilst similar themes could be discussed in a PSE lesson on puberty shortly after the Biology lesson. An explicit link was established between better collaboration among school staff by 'getting out of subject boxes' and a greater level of integration of PSE delivery, which might not only enhance the quality of provision overall but also facilitate a better use of the limited time available through better coordination across subjects:

What we're trying to encourage and to say is you know they're all complaining about time not enough time and the timetable to deliver the syllabus especially with this new thinking skills framework coming in and we're trying to tell them if they spoke to their colleagues and said well you know within this PSE framework for example there's a huge section on things which can be done within RE][...] the sooner comps [Comprehensive Schools] start thinking outside their subject boxes everybody will be better off and there are plenty of times to do the skills framework as well then. [LEA level PSE coordinator]

These observations demonstrate again the interactions between organisational and intrapersonal level influences. Timetabling arrangements within schools which are focused on examined subjects prevent staff from developing enactment zones for social sense-making of PSE, for exchanging ideas and for discussing where certain aspects of PSE might be delivered. According to earlier research, such limited enactment zones, or 'subject boxes' pose a challenge to effective implementation of PSE in practice (Coburn and Russell 2008; Spillane and Zeuli 1999). These 'subject boxes' are likely to have developed out of teachers' specialisation in secondary schools and their subsequent allocation to deliver their specialist subjects may influence the extent to which they are able and willing to collaborate about PSE.

Structures that prevent teachers from creating and using social networks within and outside the school to help make sense of PSE policy and support its implementation were criticized. It was noted that secondary schools may not dedicate resources and time to facilitate collaboration among staff to aid the integration of PSE:

A lot of PSE could easily be delivered through the curriculum if they thought about it and start to have some time to do it and that's the difficult thing in a secondary school they don't give it that kind of thinking space for staff. [LEA level PSE coordinator]

The suggestion that collaboration among school staff might enhance the integration of PSE across the curriculum corresponded to the cross-curricular implementation of PSE stipulated within the framework. It also reflects earlier findings emphasizing the value of collaborative sense-making of school policy (Spillane et al. 2002; Spillane and Zeuli 1999). A greater degree of collaboration among school staff could offer a resolution to what participants noted as a key limitation of the PSE framework: that the scope is far too broad to be implemented effectively with a wide diversity of learners. However, a number of pre-requisites to facilitate teachers effectively developing and using professional and social networks appear to be missing in three of the four participating schools, such as head teachers' commitment to promoting PSE, active encouragement of teachers to collaborate, a lack of clarity about work roles in relation to PSE (beyond the provision of worksheets or the coercive decision of allocating staff to the subject), and a lack of availability of resources to enable teachers to attend professional development relevant to PSE.

Implementers were also asked what they thought was the purpose of PSE. These views provided some insight into how the PSE policy characteristics and the policy context might influence professionals' perceptions. These perceptions are shaped by teachers' knowledge structures about their specialist subjects, pedagogic practice and pupil needs. It has previously been found that the failure to connect new policies to existing practice may create a barrier to effective implementation (Smit 2005; Matland 1995). The separation of PSE from the main curriculum re-emerged in professionals' views about the purpose of PSE. Whilst some participants frequently referred to the PSE policy document during the interview and even cited sections of it, others shared their own interpretations. They emphasized that PSE is about facilitating learners' skill development and preparing them for life by enabling them to make informed decisions and choices as they grow up. A distinction between enabling pupils and giving information was evident:

So it's mostly about giving them skills and the tools [...] helping them to develop attitudes not giving them, not telling them what their

attitudes have to be but enabling them to develop to choose what they're comfortable with [LEA level PSE coordinator]

According to head teachers, the purpose of PSE is to produce successful, adjusted, independent citizens. Although in line with the purpose stated within the PSE framework, these views appear more focused on long-term outcomes than what has been suggested in the framework such as the development of responsible attitudes. Such a focus on outcomes also differed from views of LEA staff about the purpose of PSE being to facilitate pupils' development and enabling learners to become independent:

[It's about] producing a rounded successful individual who is confident, caring, adjusted. [Head teacher, St David's School]

However, these perceptions seemed shaped by a continuing focus on performance and the associated consideration of PSE as separate from the formal curriculum. This separation seems to have emerged through an interaction between PSE policy characteristics, the policy context and teachers' views about teaching. The subject was regarded as complementary and covers aspects that would otherwise not be taught:

It's about making sure that young people are given guidance about that whole range of issues which are important to them and to their development and so on but which aren't necessarily covered in the formal curriculum in the subject curriculum [...] although there are bits in PSE that are covered within the formal curriculum but there are always lots of bits that fall outside them [Head teacher, Oakwood School]

Therefore, PSE was seen as complementary to the formal school curriculum by offering scope and time to cover such additional topics in the context of the schools' 'pecking order' of examined subjects:

To provide the opportunity to cover those areas which are not covered in other parts of the curriculum [...] we are now so hidebound by syllabi in ordinary subject areas there isn't really the

time to stray from the syllabus too much and I think PSE provides the opportunity to cover those areas [PSE coordinator at school level, Oakwood School]

PSE was also seen as offering the support that some pupils may not receive within their home. School staff in two of the four participating schools explained that PSE provision has to incorporate a wide range of aspects, including counselling and other support services available to pupils, to compensate for what pupils might not receive at home. This need was attributed to the high level of socio-economic deprivation within the schools' catchment area:

We're in a socially deprived [...] we have two Community First areas within our catchment and I think that the PSE programme in schools such as ours where there's over 37% free school meals within the school is actually more important in a school such as ours than maybe in a school with a more affluent catchment area because the personal and the social and the kind of health education children might get from their parents [...] in these types of schools you have to provide all of it for the children'. [Head teacher, Elmhurst School]

The specific attention given to the link between parental support and school provision indicates that school staff may have formed very clear ideas about their pupils' home backgrounds. During the interviews, head teachers did not elaborate in more detail on how these perceptions may have been formed, although school level coordinators considered PSE as helping the school to compensate for inconsistency in pupils' home backgrounds.

At the end of the day sometimes school is the, how can I say, the foundation to some of these children's lives, it's the only thing that's consistent in their lives because of the type of fam-, some of their families [PSE coordinator at school level, Elmhurst School].

The influence of a schools' catchment area on PSE practice seemed more evident in Elmhurst School than in any of the other participating schools. It is evident from these quotes that school staff assumptions about pupil needs seemed transformed into what is seen as the purpose of PSE and what should be delivered. There is an awareness among staff that pupils might experience inconsistent lives at home and PSE in particular is regarded as a way to compensate for this inconsistency, and to provide the support pupils might otherwise not receive. There was visible evidence of such efforts in the school reception area, corridors and teaching spaces. Displays of pupil art work, photographs of school-based activities and trophies suggested staff involving pupils and acknowledging their achievement. Teaching spaces displayed a number of visible signifiers of the integration of PSE into the normal, on-going curriculum. There were posters advertising and explaining any special support available to pupils that is offered in partnership with outside organisations. All these HPS-related elements (Flisher et al. 2000) seemed to be in place to respond to what school staff perceive to be pupil needs in relation to the characteristics of the schools' catchment area.

In Meadow School, characteristics within the school catchment area also seemed to influence staff perceptions of pupil needs and influence the provision of PSE. Unemployment in the school catchment area is higher than the county average and well over 50% residents do not hold any qualifications (NPT 2008). Seemingly in response to this a large proportion of PSE time is dedicated to informing pupils about career choices and offering them opportunities for developing relevant skills. Although the FSM rate of Oakwood School was lower than that of Elmhurst and Meadow Schools, it was still over 20%. However, other data collected at Oakwood School did not indicate any attempts made by the school to address specific needs of pupils that might be linked to the characteristics of their catchment area.

Although less familiar with the PSE policy framework and its overall focus due to the distribution of responsibilities within schools, classroom teachers also highlighted the role PSE can take in offering support that parents may

not be providing to their children. Their perceptions about the purpose of PSE emerged from a more practice-based perspective, informed by the experience of teaching a particular group of pupils they know well. However, less emphasis was placed on possible implications from instability in pupils' homes. Classroom teachers were more concerned about parents' reluctance to discuss sensitive topics with their children.

It's to talk about things perhaps that people take for granted that children will know but actually sometimes they don't [...] it's not as easy as that, you do have to break it down, all too often people assume that someone will tell them, their parents will tell them and perhaps they won't. [Classroom teacher, St David's School]

Perceptions about the purpose of PSE seemed influenced by staff knowledge about pupils' home background, whilst they also reflected an awareness of pupils' responses to PSE. It was felt that pupils dislike the subject, regard it as pointless and are reluctant to engage with it. Suggestions that this is due to PSE not being considered as contributing to examined subjects re-iterates the influence of a performance focused school policy context:

You are fighting to engage the kids cos they weren't they haven't chosen to do it [...] biggest barrier [...] children's perspective of PSE [Head teacher St David's School].

School staff noted that pupils resist PSE content and the use of appropriate pedagogic approaches largely because their parents consider it as less important than examined subjects. It was felt that the value of PSE needs to be explicitly explained to them. These views provide further evidence for the dissociation of examined subjects from PSE across the different levels of influence.

Children will come from a home background any home background it doesn't matter which particular type of home background but it's probably been given in the message in the home background that school is about Maths and English and important subjects that they

see as important and everything else is just the extra stuff that those teachers get up to at school but it's not important so we got an academic [...] profile type home who is reasonably happy to do an exam to do with it than see the point of it [Head teacher St David's School].

As pupils progress through secondary education it seemed that their enthusiasm for PSE can fade. Younger pupil groups were found to enjoy the sessions, whilst it was observed that older pupils tend to lose interest and increasingly fail to attend.

The rot starts to creep in about year 9 where ohh it's not cool whereas year 7 you watch them going out of the door at the end of the day and they're bubbling ohh can we do this every day you know and year 8 yeah great enjoyed that and they're going out and by year 9 it's not cool and by year 10 and 11 it's definitely not cool and the attendance is starting to drop off as well so you know just what do we do to make it cool because we're providing high quality resources and the children are actually enjoying it and benefit from it but to get them higher up the school to get them to admit it is the problem [School-level PSE coordinator Oakwood School].

Such beliefs about pupil attitudes towards PSE may influence practice. Knowing that pupils and parents regard the subject as unimportant due to PSE not explicitly contributing to their exam performance is likely to be disheartening and frustrating for teachers, impacting on intrapersonal influences on sense-making (Leithwood et al. 2002). In addition, interpretations of the framework appeared to be informed by subject specialisation and a focus on knowledge transmission, characteristic of a performance-focused curriculum that is aligned to maximising exam grades:

[In response to the question what the participants considers to be the key aims of PSE] I think that's a question lots of people don't ask don't bother with they go straight into the doing bit without asking why they're doing it. [LEA level PSE coordinator]

Reflecting experience as teachers who are in their current role withdrawn from day to day teaching practice, LEA PSE coordinators appeared to hold certain ideals about how best to teach PSE and criticized school staff for ‘defaulting’ to fact-focused teaching. Although such a traditional approach to teaching was acknowledged to reflect a large proportion of approaches to teaching examined subjects it is deemed inadequate for PSE:

That’s where I think lots of people get it wrong they go straight in thinking they got to teach the knowledge and understanding there.
[LEA level coordinator]

Such an emphasis on facts seemed to evolve out of school staff predominantly focussing on the themes the PSE framework seeks to cover whilst paying less attention to the skills that are to be promoted, thereby misinterpreting the guideline documents. Such a focus on themes appears to illustrate the influence of knowledge structures and views of pedagogy on policy implementation (Cohen et al. 1998), which may largely be based on teaching core curriculum subjects where it is important to cover themes and convey facts. This approach seems to be applied to the interpretation of the PSE documentation, exemplified in Figure 4, which presents an extract from the page discussed during the interview. Learning outcomes for each key stage are divided into two categories: skills and range. ‘Skills’ are referred to as aspects that should be fostered through PSE, and are presented in a light blue box at the top half of the page, alongside symbols to represent these skills. ‘Range’ describes the subject or content coverage expected. Within secondary school environments that predominantly focus on exam performance, school staff were likely to have developed heuristics about practice (Spillane et al. 2002). Therefore, familiar elements of the PSE framework which are perceived as in line with current practice receive more attention than unfamiliar aspects:

[Pointing on document] These are the skills that would be expected to be taught or how the subject was actually being developed through Ok and the range are the things the topic areas that should be covered in the key stage. Now what’s happened in lots of our

schools and across Wales is people are turning to the range and they're looking at it and say oh yeah I do that I do that I do that [pointing] but they're not starting with the skills [LEA level PSE coordinator]

In addition to influencing interpretations of PSE framework documentation, a policy context focused on grades seemed to shape organisational arrangements, such as timetabling. This, in turn, appears to have the potential to strengthen teachers' sense of being a subject specialist. Subject specialisation may leave little room for PSE, as it is likely to be regarded as outside the subject domain and not fitting into teachers' practice schemata. For these reasons, specialist teachers may not always be comfortable delivering PSE and they may, as Whitty (2002) noted, be protective of their area of expertise:

Some teachers they don't want to do it and to a degree I sympathise with them as well you know because I think well you know if you're very good at Maths and you're very good at teaching Maths and the thought of teaching Sex Education scares you [...] then why on earth are we trying to get them to teach sex education lessons its crazy you want somebody doing the sex education lessons who's up for it and who knows the issues and is good at it and is good at open discussion work. [LEA level PSE coordinator]

Discomfort and uncertainty seem to be some of the emotional implications of PSE falling outside most teachers' subject specialisation. As a result, teachers are reluctant using discussion-based teaching approaches, in particular on topics outside their specialist subject areas where sensitive questions may arise:

Resistance again among older members of staff not used to that way of teaching [LEA level PSE coordinator].

Habits of teaching in a certain way may have been shaped by many years of teaching a particular subject. Narratives indicated links between teachers' specialisation to teach examined subjects, and associated pedagogic practice

aligned to performance, largely didactic approaches to transmitting knowledge and facts. Due to such socialisation into ‘conventional’ practice, some older teachers were also seen as reluctant to apply what they regard as ‘unconventional’ pedagogic approaches to delivering PSE as these may be more physically demanding.

There’s also obviously some resistance to teaching in a child centred manner is harder physically as well you have to be on your feet you know you have to be around the place and you have to be around the classroom it’s a bit physically more demanding than it’s easy to go and sit behind your desk and start lecturing isn’t it [Head teacher Elmhurst School]

LEA level PSE coordinators also held ideals about the role of the teacher in facilitating PSE lessons, that teachers should be able to develop good trust relationships with their learners. In order to respond to the purpose of PSE adequately, teachers should not only be there to convey knowledge and facts, but to assume several supportive roles at the same time by becoming a mentor or facilitator:

Not only that they’re good PSE teacher they’re a good teacher and a good mentor and a good coach and all of that sort of thing. [LEA level PSE coordinator]

This role of the teacher was seen as much more important than the availability of resources. Teachers were criticized for considering resources such as DVDs or worksheets to be the main source for learning. Such ‘overuse’ of materials was criticized as a poor substitute for teaching. PSE lessons should be delivered using appropriate pedagogic approaches instead of the use of resources and materials:

In the learning the critical resource is the member of staff the human resource not the book or the video whatever the DVD or whatever else you get that’s another mistake people make is you know the Welsh Assembly I think are guilty of it they say oh well we pay for the [...] DVD to go out to all schools or the healthy schools scheme

well great but if the teacher doesn't want to teach sex education then that DVD is no use at all so you know it's got to be about the teacher and that's why we have our problems with the secondary schools in particular [LEA level PSE coordinator].

Head teachers also highlighted the importance of the role of teachers in delivering the subject. For example, the allocation of senior staff to delivering PSE was considered as adding credibility to the way in which pupils and parents see PSE as subject. One head teacher commented that if the member of staff delivering PSE is seen by pupils as having a high status within the school, this might affect the value they attribute to the subject. Whilst no previous research has been identified that might suggest the status of staff members affects the way in which subjects are seen, Hill (2005) has found evidence for the influence of teacher characteristics and skills on student achievement. To some extent, these arguments might reflect the importance of power relationships within schools on policy implementation (Spillane et al. 2002). They also illustrate the influence of head teachers' decision-making on school culture and staff motivation (Kasili and Poskiparta 2004; Watkins et al. 2008). As mentioned earlier, head teachers who believe in the importance of PSE can have a strong influence on staff attitudes by allocating resources, clarifying roles and facilitating professional development:

If you get if they also are fairly senior in the school then the whole subject gets kudos too doesn't it the whole thing changes [...] children's perception changes too because obviously you think they go into a classroom no disrespect to other colleagues but if they go into a classroom and they're taught by the Deputy Head or they're taught by the Assistant Head or something like that then immediately they're in a different environment [...] and if they thought PSE was a messing about lesson they might try that on with a young teacher mightn't they [Head teacher, St David's School].

It has previously been found that the influence of key people on implementation can be very powerful (Barrett 2004), and that in particular head teachers might have a significant role to play in the success of implementation processes (Watkins et al. 2008). Section 6.2. attempts to show how head teachers' views of PSE and related decision-making can influence the attitudes of staff. These views seemed also linked to continuity in PSE provision and the types of lesson processes that are used. It appears that in St David's School the commitment of senior staff might have supported the implementation of PSE and contributed to high quality provision. These findings were similar to observations made at Meadow School, and differed from arrangements at Oakwood- and Elmhurst School.

In addition to perceptions of the role of teachers, views about appropriate classroom processes provided an insight into teachers' knowledge structures about pedagogy. Considering the use of worksheets and the provision of information and facts as unhelpful, head teachers regarded the facilitation of interaction and discussion as appropriate ways to teach PSE. The following quote indicates how this participant despised of what he considered as traditional teaching approaches, and that he considered a focus on fact provision as outdated and unhelpful:

PSE in order to survive it has to have involvement type teaching it has to have it can't be 'here's a worksheet' or you know it can't be that type of teaching of way back or it can't be death by everything from projector or whatever it might be it cannot be that sort of teaching it never could be because [...] so if you want to engage you got to be interactive. [Head teacher, St David's School]

Such an emphasis on the importance of competency-focused pedagogic discourse in PSE lessons reflects earlier arguments (Whitty 2002). It also seems to show the influence of school leadership on teacher views and lesson processes, in accordance with previous findings suggesting the importance of head teacher decisions in facilitating implementation of school policy (Watkins et al 2008). Other interview and lesson observation data collected at this school (also summarised in Table 5) indicated a

coordinated approach to delivering PSE, and showed that PSE lessons were more engaging. School staff emphasized the importance of facilitating discussion-based lessons and interaction among pupils.

PSE coordinators in schools seemed to be the key implementers of PSE policy and their views about PSE in practice appeared more informed by day to day teaching than compared to views held by head teachers. They predominantly referred to classroom activities and named or described techniques that take different learning styles into account such as visual, auditory, and kinaesthetic approaches to teaching. Teaching PSE lessons was seen as requiring a provision of entertaining lessons that are of interest to pupils in order to ensure attendance and discipline. The emphasis on interactive and interesting lessons attempted to ensure that PSE lessons can compete with the excitement and interest offered through multimedia entertainment young people experience at home:

If we stick with the chalk and the talk we're gonna lose the kids' interest I think we've got to adopt an all bells and whistles approach and compete with you know what they choose to do and which is far more exciting out of school I think we've got to use those technologies within our teaching and we've got to involve the kids in using those technologies in our teaching [...] I've got two children my daughter my eldest daughter just left this school and my youngest daughter is in year 10 and I'm aware that what they get up to at home in terms of visual stimulation television video computers play stations and all that unless we're careful in school we can't compete with the excitement provided with those elements and I try I don't always succeed but I try and include as many elements of that sort of thing you know as I can because I think otherwise school is gonna become something where it's second class to their outside school activities and I'm very anxious that that shouldn't happen [PSE Coordinator School level, Oakwood School].

These views emerged from a role with multiple responsibilities in addition to implementing PSE, such as being key stage manager, whilst also being

anxious that school should not become ‘second class’. Such perceptions were in contrast to views held by LEA level coordinators and head teachers. Whilst those at a more senior level emphasized the value of engaging learners and facilitating discussion to enhance independent work and pupils’ development of skills, school PSE coordinators’ views were more focused on practical aspects of classroom management: if lessons are entertaining and interesting, pupils were more likely to attend and less likely to be disruptive. Lesson observation data presented in Chapter 7 demonstrates how these views appeared to be realised in practice, through the organisation of PSE sessions using games and props to retain interest.

Similarly conscious of the importance of retaining learners’ interest, classroom teachers felt that the use of different teaching approaches should be in line with different types of learners, again reflecting day-to-day classroom teaching experience. If not determined by school level PSE coordinators’ preparation of lessons, classroom teachers’ decisions about how to deliver lessons appeared to be mainly informed by classroom management concerns. Using different approaches to teach PSE and incorporating a great deal of variety into lessons was seen as maintaining interest and attention:

Just as many different things as we can to keep their interest [...] just bringing a variety of teaching methods so they’re not just sat there listening, they’re doing different things [Classroom teacher, Elmhurst School].

This variety was enhanced by including activities or guest speakers, which were seen to help pupils remember the content of the lesson better.

Just to make it more active and they remember it then. And we find by having guest speakers in they tend to remember the guest speakers a lot more than the normal member of staff [Classroom teacher, Elmhurst School].

Although the PSE framework encouraged the integration of external speakers or experts to deliver components of certain PSE themes, such as

drug awareness or sex education, it was noted that this needs to be well planned and integrated within the curriculum. In some cases they were described as unreliable or delivering poor quality lessons. External speakers, such as nurses from the public health team, police officers, or representatives from local charities, may not necessarily be aware of school policies, and are certainly not familiar with the pupils to shape their lessons appropriately. Visits that are insufficiently coordinated and integrated into the wider programme may create uncertainty in pupils. For example, if guest speakers are invited to deliver lessons on sensitive aspects such as initial lessons on sex education, they should be followed up by the regular teacher to provide continuity for learners.

It appears that the variety of views on how best to deliver PSE may reflect differences pedagogic skills of school staff, as noted by Cohen (1998). Whilst some school level PSE coordinators and classroom teachers talked of the importance of facilitating interaction to develop PSE relevant skills (such as at Meadow- and St David's School), others at Elmhurst- and Oakwood School were more focused on ensuring lessons are interesting and entertaining to maintain attendance and discipline. These views about PSE lesson processes might also provide an insight into the re-contextualisation of policy in intrapersonal level determinants on sense-making. Teachers' knowledge of pedagogic practice influenced views about the purpose and aims of PSE and shaped the way in which they thought lessons should be delivered. Knowledge about pupils and their backgrounds as well as their responses to PSE informed views about the function of PSE. This knowledge shaped teachers' views about practice and how it might be enhanced to stimulate pupils' interest in PSE. Subject specialisation of teachers seemed to have established practice schemata or 'comfort zones' that define process and content-related boundaries to what teachers are prepared to deliver. These seemed to re-emerge in interpretations of policy documents, suggesting an alignment to their own practice, such as a focus on themes. Subject specialisation was also evident in perceptions about practice, suggesting a reluctance of school staff to facilitate interactive lessons, recognition of the central role of teachers in facilitating teaching

and views about pedagogic approaches that are deemed appropriate for delivering PSE.

6.4. Chapter summary

It was evident that decision-making around PSE was strongly influenced by a policy context focused on measurable performance indicators affecting all levels of influence on PSE policy sense-making. However, such competing priorities were not acknowledged in the PSE framework. The influence of exam performance appeared to be evident at all levels of implementation and reflects earlier findings about PSHE in England (Formby 2011; Whitty 2002). Although not recognised in the PSE framework, implementers were clearly aware that grades will continue to dominate what secondary schools are about. How this prioritization shapes practice seemed mediated by head teachers' views of PSE and related decision-making about arrangements for PSE provision. Additional policy pressures seemed to reinforce this focus on examined subjects and written evidence of pupils' activities. This focus on exam grades appeared to shape resource allocation and timetabling in schools. The allocation of unwilling staff to teach PSE, particularly in one of the four participating schools, reinforced the separation of this subject from the core curriculum. Linked to this, some staff seemed frustrated about their inability to teach PSE as they consider it appropriate for pupils. According to Leithwood et al. (2002), policies that are not in line with professionals' perceptions about what is beneficial for pupils may create additional challenges. A lack of clarity about assessment reiterated this disconnectedness by communicating the low value of PSE to pupils and parents. The importance of assessment regimes for the status of a subject is well established (Abbott et al. 2011; Bernstein 1990; McCuaig et al. 2012).

School arrangements aimed at optimising the delivery of examined subjects seemed to limit opportunities for teachers to collaborate about PSE, especially in one of the four schools. At the same time it appeared to reinforce teachers' subject specialisation, making PSE 'nobody's specialism'. This, in turn, seemed to prevent the development of teachers' 'enactment zones' in relation to PSE, which would be a space for

collaboration and exchange with other teachers within the school and opportunities to develop networks and links with outside agencies. These enactment zones have previously been noted as important for effective implementation of policy (Spillane and Zeuli 1999). The data has shown that teachers as well as PSE coordinators at LEA level feel that the subject delivery could be improved if school staff had sufficient opportunities to collaborate.

The separation of PSE from the main curriculum seemed to create discomfort and uncertainty with those who have to teach it, as it was seen as requiring a significant diversion from prevailing teaching approaches. This was particularly evident in two of the four schools. Implementers' views of the aims of PSE had little resemblance to the aims stated in the framework documentation. They seemed more in line with teachers' understanding of pupil or school needs. Especially in three of the four schools, staff referred to the characteristics of the schools' catchment area and associated pupil needs.

It has previously been found that professionals' views about teaching and pedagogy are important influences on implementation (Cohen et al. 1998). Whilst LEA level coordinators and head teachers who were further removed from classroom teaching emphasized the importance of pupil engagement and appropriate pedagogic approaches, those involved in day-to-day teaching at two of the four schools elaborated on the practical aspects. They emphasized the importance of ensuring lessons are entertaining so pupils remember and are less likely to be disruptive.

According to perceptions of LEA level coordinators and school staff, these findings suggest that the implementation of PSE might be limited by a lack of resources and status, resulting from the prioritization of examined subjects in schools. This demonstrates an interaction between policy- and situated level influences on sense-making of the PSE framework, which seemed to shape staff views about practice. How these re-emerged in practice will be examined in the next chapter.

CHAPTER 7 PSE policy in practice

The aim of this chapter is to create an understanding of how practice is shaped by situated level influences and how it is perceived by pupils. Practice was examined using focus group data to understand pupils' experiences of lessons. Lesson recordings were used to examine the nature of verbal exchanges that took place between teachers and pupils. Lesson observation data was used to examine the physical setting characteristics, such as seating arrangements and visual integration of PSE, the content of lessons and classroom processes as well as the allocation of staff. It was evident that a performance-focused policy context, which seemed to shape situated level determinants of policy sense-making, re-emerged in classroom practice. PSE lessons observed in all four schools took place in teaching spaces that were designated for other subjects and visible signals suggesting an integration of PSE was limited. Lesson exchanges between teachers and pupils were predominantly characterised by a transmission of facts, although some encouraged pupils' active engagement with the lesson content.

Whilst performance focused pedagogic discourse might be more compatible with fact-based assessment regimes, it does not encourage the development of skills. As noted earlier, such lesson processes might interfere with pupils' pace of learning and can have a demotivating effect (Assor et al. 2005). They may therefore be less supportive of pupils' academic attainment (Hmelo-Silver 2004). Performance-focused pedagogic discourse has been argued to provide few opportunities for pupils to develop health competencies (Au 2008; Begoray et al. 2009; Morais 2002) and may most certainly be less appropriate for delivering PSE lessons. These arguments were reflected in pupils' perceptions about PSE lessons, and what processes they consider as helpful for their learning and understanding. Their views indicated a dissociation of PSE from the remainder of the curriculum and their lived experience, although they recognised the value of the knowledge they have gained. Considerations of the short- and long-term implications of health behaviours indicated that some pupils understood and applied health

knowledge across contexts and self-regulated their own health behaviours. The next section is concerned with pupils' experiences of PSE.

7.1. Pupils' experiences of lessons reflecting the production and sense making of PSE policy

Focus groups were conducted in each of the four schools to explore pupils' experiences of PSE lessons, and how these reflect the multi-level influences on the implementation of PSE considered in Chapter 6. In order to generate as rich a data set as possible and minimize guided responses, a semi-structured set of questions was used to prompt focus group participants to discuss what they thought PSE is about, what they liked best and least about PSE lessons, what health and well-being means to them and what they thought about their schools' efforts in ensuring they are healthy and happy. In order to gain further insight into pupils' perceptions about how PSE lessons should be delivered, they were also asked how they would design a PSE lesson.

Focus groups were arranged to take place after completion of lesson observations. As PSE provision differed between the schools with varying topics and time intervals between lessons, it is important to consider pupil focus group responses in their context as it may have influenced pupils' experiences of PSE. For example, one of the three lessons observed at Elmhurst School took place in late October 2009, the other two in January 2010, beginning and end of the month. All three lessons took place on Tuesdays at 9.10am and appeared to be the only way in which PSE was delivered at this school. The first lesson was focused on explaining pupils how to deal with money. The second and third lessons dealt with healthy eating. At Oakwood School, I was invited to attend a PSE day in October 2009. Instead of delivering regular lessons the school offers three such days per academic year where the normal timetable is suspended, and all classes are timetabled to deliver PSE sessions in a carousel-like arrangement: seven 40-minute sessions across the school day. Although I attended the whole day, data from only three lessons was taken forward for analysis as these

were deemed most relevant to the focus of this study. They were concerned with young people's health behaviours specifically, or personal and social development more generally: Lesson 1 focused on exploring friendships, lesson 2 dealt with careers and personal development and lesson 3 with smoking and healthy eating. These PSE days at Oakwood School appeared to be the only means of delivering the subject.

In Meadow School, all three lessons that were observed took place in fortnightly intervals in November 2009, Thursdays at 1.30pm, lasting for 50 minutes, and were held in the computer area of the library. All three lessons were mainly focused on careers and personal development, although they also touched on issues related to bullying in school. Lessons were supported through dedicated morning assembly talks and other activities. These arrangements were similar to those observed at St David's school, where the three lesson observations were distributed across three school terms and were enhanced through other activities within the school. The first session took place at the end of September 2009, the second at the end of November 2009 and the third in mid-January 2010. All lessons took place at different times, the first at 9.30am, the second 11am and the third at 12.30pm. Lesson 1 was focused on explaining bodily changes during puberty, whilst lessons 2 and 3 focused on friendships and how to deal with problems.

The most important theme that was identified across all focus groups related to pupils' negative experiences of performance-focused pedagogic discourse. As a result of such lessons, pupils seemed to perceive the taught content of PSE as somewhat disconnected from their lived experience. This finding reflected staff views and other elements of practice, suggesting a separation of PSE from the curriculum. Although the majority of focus group participants did not openly or explicitly criticize PSE lesson provision, pupils' dislike for lessons emerged more implicitly from the data. For example, pupils agreed that many of the lessons do not appear to provide them with sufficient opportunities to become involved and engaged, and to understand the knowledge provided to them. They explained that they dislike lessons in which they have to fill in worksheets or copy text out

of books. In response to my question why it is that they dislike such lessons they explained that they are less likely to understand what is taught to them:

If you just like write in books you can't see anything [Pupil focus group St Davids' School].

There was agreement among all members of this focus group about such fact-focused, book-based lessons being unhelpful. In order to illustrate these points pupils went on to describe the sort of lesson activities that help them understand what is taught to them and apply this knowledge to their own lives such as discussions, small group work, games, or activities using props. Participants in all four focus groups indicated that they preferred lessons that ensure they are actively involved. These views reflect earlier findings about pupils' dislike of performance-focused pedagogy, alongside suggestions about how PSE lessons should be delivered (Begoray et al. 2009). These suggestions were often based on lessons that preceded the focus group. For example, pupils at Meadow School became very enthusiastic about designing a PSE lesson themselves and described how they would get the class into groups to write their own anti-bullying poem on the computer, and then to design badges they would sell across the school. In the other schools, pupils' suggestions were more generic, indicating they would include many fun activities such as educational games. Pupils' preferences for being able to actively participate in lessons corresponds to their views about how they are best able to learn and that didactic lessons are less helpful for them to understand what is taught:

Groups and like active things and stuff [...] more fun activities [Pupil focus group, Elmhurst School].

There was also consensus among pupils about the reasons for their dislike of fact-focused classroom processes. They noted that lessons which engage and illustrate important issues helped them to better understand the knowledge that is conveyed to them. For example, pupils at Oakwood School noted that they enjoyed hands-on elements of sessions that permit them to learn about smoking and healthy eating in an illustrative way:

Interviewer: And why do you think that particular lesson was so good?

Pupil 1: well I think it's because I like visual things I like seeing it and I like touching and with for healthy hearts she showed us this big tube in it showing lots of things that were in cigarettes so I liked seeing all the different things

Pupil 2: yeah that's true

Interviewer: right OK anything to add?

Pupil 3: well there was I liked the smoking one because it actually shows that if you smoke how bad your body will get

Pupil 2: yeah [...] with that one you could see and touch same with the healthy eating

Pupil 1: yeah cos with the healthy eating you put it on the actual plate [Pupil focus group, Oakwood School]

This extract illustrates the reason why pupils feel they are better able to learn through active participation and teachers' use of different props. Pupils felt being able to touch and see things helped them understand and remember what they are being taught. These views relate to earlier arguments for the value of competency-focused learning in supporting pupils develop a wide range of skills. This approach to learning, as described by pupils in this study, might entail a tacit transmission where showing or modelling precedes doing (Bernstein 1990; Bernstein 1999). These perceptions also connect to findings from interviews with LEA staff and head teachers, suggesting PSE should be taught using approaches that engage pupils and provide space for interaction. However, pupils' responses also indicated that they experience lessons which fail to create a linkage to their lived experiences. For example, participants in one of the four focus groups agreed that lessons, which sought to create awareness about certain issues such as suffering in developing countries or the consequences of bullying, create anxiety. They felt that being exposed to such negativity is not beneficial to them:

- Pupil 1: [in response to the question what they felt is the worst about PSE] the worst part is about when she tells us things that happen to other people and it's not very nice to learn about because we don't really wanna learn about that stuff because it is really sad*
- Interviewer: What sad stories do you mean?*
- Pupil 2: some stories are about children like really thin haven't enough food and [teacher] told us a story today about*
- Pupil 3: [interrupting] this boy had been bullied so he had to commit suicide*
- Pupil 2: yeah he overdosed in drugs and he committed suicide because he didn't want to be bullied anymore*
- Interviewer: hm*
- Pupil 4: It's not there's not many people being bullied like this so there's just no point to be*
- Pupil 5: it's just not gonna do us any good*
- [Pupil focus group, Meadow school]*

These views suggest teachers' use of emotion in order to capture pupils' interest and enhance retention might have been less effective than intended. It appeared that these pupils were unable or unwilling to relate such lesson content to their own experience. The delivery of PSE related topics in this way may not have provided opportunities for pupils to understand knowledge and apply it to different contexts. As will be shown further below, such experiences reflect findings from lesson observations, indicating a predominance of performance-focused lesson processes characterised by a transmission of facts and knowledge. Such exchanges, as noted by LEA- and school staff as well as pupils themselves, may, according to earlier findings, not be helpful for pupils to develop a deeper and more applied understanding of important PSE-relevant issue understand and apply knowledge across contexts (Barrows 2000; Dewey 1938).

Chapter 6 has argued that the influence of a performance focused policy context appeared to have filtered through all levels of influence on the implementation of policy, such as organisational arrangements and staff perceptions. Particularly at Oakwood School, head teachers' and PSE coordinators' views focused on PSE being supplementary to the main curriculum. The curricular arrangements for PSE at this school appeared to re-iterate this separation of PSE from the curriculum. This separation of PSE was also evident in pupils' perceptions, suggesting that the purpose of PSE is to discuss aspects otherwise not covered in the curriculum:

*Learning about things that we don't normally learn in school [...]
[Pupil focus group, Oakwood School]*

The separation of PSE from the on-going curriculum was evident from other data collected at this school, and it demonstrates how new policies might remain separate from existing practice. It corresponds to earlier findings emphasizing the importance of head teachers' decision-making in shaping school culture and organisational arrangements supportive of policy implementation (Watkins et al. 2008; Whitley et al. 2007; Yecke 2006). It also illustrates the interaction between structure and agency, between school setting characteristics and intrapersonal characteristics of implementers, which has previously been identified (Spillane et al. 2002). The PSE policy produced by this school was focused on demonstrating compliance rather than providing guidance for school staff. The head teacher at this school emphasized that the subject will remain at the bottom of the 'subject pecking order'. The PSE coordinator at this school recognised the low value pupils attach the subject. Classroom teachers delivering lessons do not feel responsible for the provision, and do not seem to think that the formal teaching of life skills is beneficial to pupils. The once-a-term PSE day provision to minimize travel costs for presenters emphasizes the disconnectedness of PSE from the main curriculum. As a result, pupils' experiences reflect the separation of PSE from what is normally done at school.

Elsewhere, the purpose of PSE was described by pupils as being used as ‘substitute time’ to support other subjects, reflecting findings from school staff interviews. Some pupils at Elmhurst school thought the purpose of PSE is to ‘finish things off’, to work on tasks that had not been completed in other lessons. These views shared by pupils in two of the four participating schools referred to PSE lessons as fulfilling a purpose that is disconnected from what the subject is about. In contrast, pupils’ experiences at Meadow and St David’s school appeared more in line with the purpose of the subject. Considering these differences in the context of other data collected, there appears to be a pattern. In two of the four schools PSE school policy seems to be focused on guiding staff, and head teachers appear to be supportive of PSE and recognise it as helpful for pupils’ development. In these same two schools appears to be continuity in how PSE provision is organised, and pupils experience PSE as a subject that aims to help them personally. Whilst it seems that setting characteristics and schools’ catchment area are important in shaping staff perceptions about pupils and practice, these very similar observations were made in two schools with FSM rates and achievement levels that were very different from one another. Considering these findings in the context of other data collected at the four participating schools it appears that FSM rate, indicative of the level of socio-economic deprivation in schools’ catchment area, and academic achievement levels, did not appear to be linked to the way in which PSE was implemented in schools. There are several possible reasons for FSM levels remaining unrelated to patterns in the findings from this study. FSM as a selection criterion might have been less meaningful than intended. The potential limitations of FSM as an indicator of socio-economic disadvantage have been discussed, suggesting that it might be more an indicator of the number of people who claim FSM than those who are entitled to it (Hobbs and Vignoles 2007). Previous research has indicated the importance of a supportive school culture, facilitated by effective leadership. It was evident from the findings that head teachers’ views about PSE appeared to strongly influence the way in which they made decisions about organisational arrangements for the provision of the subject. These arrangements appeared influential on teachers’ views about the subject and the delivery. It is

possible that these mechanisms within schools represent very important determinants of how PSE is implemented, with the level of disadvantage in the schools' catchment area being less influential. Another possibility is that processes within schools counteract the potential influence of disadvantage on implementation. School staff in three of the four participating schools appeared to be aware of pupil needs that are linked to the type of school catchment area, and indicated that certain aspects of PSE delivery seek to address these needs. Although the participating schools were systematically selected, the sample was very small, and therefore these observations might require further validation. Pupils' reflections about PSE classroom practice also indicated ways in which lesson processes or other socio-ecological level influences might affect intrapersonal determinants of health behaviours. These are considered in the following section.

7.2. Pupils' experiences reflecting intrapersonal level determinants of health behaviours

Pupils' experiences of PSE provided an insight into how PSE lessons or their processes might influence intrapersonal determinants of health behaviours. Key themes were positive attitudes towards PSE and health behaviours, and the understanding and application of health knowledge. Attitudes were apparent from pupils' appreciation of what PSE seeks to achieve. Their reflections about the long- and short-term implications of unhealthy behaviours, the contributors towards healthy behaviours, and the ways in which they self-regulated their own health behaviours indicated an understanding and generalisation of knowledge across contexts.

7.2.1. Attitudes towards PSE

The majority of focus group participants agreed that the aim of PSE is to raise awareness about important issues to help them in making the right choices and decisions about their own physical development. Thus, in line

with some of the ambitions of the PSE framework, pupils recognised that the purpose of PSE is to support them:

To find our places [...] to help us learn properly [...] she's [the teacher] trying to look out for us so we don't make the wrong decisions [...] [Pupil focus group, Meadow School].

Similarly, pupils at Elmhurst and Oakwood School saw PSE as a means to support them more generally, albeit suggesting a vague understanding:

To look after yourself?' and 'to help with the future and kind of decide things [Pupil focus group participants Elmhurst school].

Learning like about how to sort of behave and things [...] socially I think [Pupil focus group, Oakwood school].

Pupils evaluated PSE positively and noted that the subject helps to raise awareness, provide knowledge. For example, it helps them to make sense of their own bodily development and be less worried about what is happening to them. Although this focus group in St David's school took place after the second PSE lesson, which was concerned with friendships and how to resolve problems that may occur, views were influenced by the first lesson concerned with pubertal changes:

It's, like, help you when you are like, grow up [...] if you are worried about anything, you know what it's about and all that [...] you learn about your body and what's happening to you when you grow up [Pupil focus group, St David's School].

A PSE-related morning assembly session on bullying that preceded the focus group in Meadow School appeared to have left a strong impression with some pupils. They explained that knowing about bullying and raising awareness helps them to understand such behaviours better and be informed about sources of support. They recognised that the moral guidance they are receiving through PSE will help them behave maturely:

[...] like in guidance she'll teach us about bullying and things like that [...] I think she's teaching us that when we're older we should

be mature not immature act selfish [...] The best thing about it is it's good for us because if like you were doing that before you know like it's bullying and you'd stop doing it [...][Pupil focus group participants Meadow school].

Pupils negotiated agreement about the severe consequences of bullying. Considerations about suicide being one of these illustrate that they felt very strongly about the issues that were presented to them:

Pupil 1: I think it's scary if someone in your street could be when they could that to you

Interviewer: hm

Pupil 2: make you commit suicide

Pupil 3 it makes you think twice

Interviewer: yeah

Pupil 4: some people feel it doesn't happen in your street

Pupil 5: and it's like your best friend could be your worst enemy

Pupil 6: I know nobody knows that it's happened because some people get too scared to get help some people get really upset they just let it carry on and they're scared to tell anyone else

[Pupil focus group participants Meadow school]

These reflections suggest pupils having applied knowledge acquired in PSE lessons across contexts, indicating that they have understood the knowledge provided to them (Dewey 1938). Whilst such understanding and application of knowledge might be the result of competency-focused pedagogic discourse, the scope of this study could not accommodate an observation of any such linkages. Pupils' reflections also indicate that they positively evaluated PSE lessons and the knowledge conveyed within it, such as knowledge about personal bodily development or awareness about the consequences of bullying or indeed the benefits of a healthy lifestyle. According to the SCT-based theoretical perspective described earlier,

positive attitudes towards a target behaviour represent one important precursor of behavioural intentions (Fishbein and Ajzen 1987).

Some focus group participants highlighted additional concerns. For example, pupils in St David's School remarked that having girls' pubertal development discussed in front of boys can be embarrassing. In some instances they are worried about confidentiality of such sensitive discussions within the class:

Pupil 5: Like, the talking about it is a bit embarrassing.

Interviewer: Right

Pupil 6: It's like, all your friends are around you and you're talking about [...] and there's boys in the class too, so when we talk about boys things and girl things so that could be a bit embarrassing sometimes, if you're with friends, but if you're with people you don't know they might spread it around [...].

[Pupil focus group St David's School]

Despite some reservations and perceptions of boundaries about what should and should not be talked about, pupils seemed to be in agreement about the value of PSE. Their views illustrated the intensity with which some of the themes are perceived, and that they generally seemed to hold positive attitudes towards PSE and health behaviours. This aligns with findings from interviews with school staff, suggesting year 7 pupils are still enthusiastic about the subject whilst the interest ceases as they progress within the school. Potential issues about confidentiality or pupils becoming embarrassed, however, did not appear to have been considered by teachers.

7.2.2. Understanding and application of knowledge related to health or PSE

As discussions within the focus groups progressed, pupils began to explain why it is important to live healthily and were largely in agreement about the reasons. Their comments indicated an awareness of the short- and long-term

implications of poor diets and a lack of exercise on their school and personal lives, suggesting an understanding of health messages and the application and reproduction of this knowledge across contexts. Pupils noted that healthy eating helps them learn better or enjoy life at school more generally. They recognised that they will not be able to concentrate if they feel unwell and there was consensus about the importance of health for their learning:

The healthier you are the fitter your brain is [Pupil focus group, St David's School].

If you eat well you'll be you can concentrate better in school [Pupil focus group, Meadow School].

Diet was also seen as affecting overall bodily functioning:

Our bodies are part of a whole if one piece don't work nothing else works like if we eat bad things our mood will change to a bad mood if we eat good things we'll change to a happy mood [Pupil focus group, Meadow School].

Health and well-being was not only understood in relation to physical health, healthy eating and regular exercise. Some pupils also made reference to mental health and suggested that being worried interferes with learning:

[...] If you're not happy you're not gonna do the work and you're not gonna be able to concentrate[...] if you have a problem or anything and you don't say anything it's just like hunched up in your mind and it's not gonna help you to focus [Pupil focus group St David's School].

These views and explanations illustrate pupils' positive attitudes toward health behaviours, which has been noted as an important contributor towards health behaviour intentions (Fishbein and Ajzen 1987). It also illustrates how health knowledge has been internalised, applied across different contexts, thereby showing understanding (Dewey 1938; Hmelo-Silver 2004). Whilst some pupils elaborated on the short-term impact of health behaviours, they also talked about implications in the longer term.

They pointed out that a healthy lifestyle is more likely to help them be successful later on and that a poor diet can lead to chronic diseases and limit their social functioning. Particularly pupils in Meadow School elaborated on the impact of poor diet and how it can limit their quality of life in the long term. They referred to the link between diet and chronic diseases:

If you eat like sugars and fats it blocks sometimes it blocks like if you eat too much cheese it will block up your arteries and too much fat and sugar can harm your heart [Pupil focus group, Meadow School].

Long-term implications were also recognised to be related to professional functioning, such as the participation in sports teams and their later career opportunities:

You have a better chance of getting a good career if you're healthy and fit [Pupil focus group, St David's School].

These reflections on the short- and long-term implications of health behaviours suggest that pupils appeared to have developed an understanding of health messages. As they applied them to real life they drew their own conclusions about what they mean to them personally. Such generalisation of knowledge across contexts was also evident from the way in which pupils evaluated their schools' support in helping them to live healthily. All participants in the focus group at St David's school were in agreement that the choice of food offered was a way to encourage pupils to eat healthily without coercion:

In the food hall, in the main hall, there's at the side with like salads and wrapped salad and chicken and pasta pots, but the other side is like, like the fatty stuff [...] so you can choose; like they are not trying to force you to be healthy but it's like they are making you to choose which side you want to go on [Pupil focus group, St David's School].

Such a provision of healthy food reflects one of the HPS elements aimed at promoting young people's health behaviours (Flisher et al. 2000). This finding corresponds to other data collected at this school, which is indicative of a culture that is supportive of PSE, a head teacher who is committed to the value of PSE for pupils' personal and academic development, and staff who are motivated to delivering and organising the provision of PSE. It has previously been noted that such a supportive context can aid the implementation of policy (Balfanz et al. 2002; Whitley et al. 2007; Yecke 2006). Pupils' reflections also referred to wider school practices and resources outside of classroom exchanges that are aimed at promoting a healthy lifestyle, such as after school sports clubs or jogging tracks. However, there seemed to be less agreement about other ways in which schools might support pupils in their development. One participant noted that praise could be another form of the schools' role in supporting pupils' wellbeing, through the provision of opportunities to gain awards and merits and certificates for certain curricular or extracurricular achievements:

They give you merits they give you those certificates if you get to a certain [...] cos we have like they don't give you merits that often but [...] it makes you feel special if you get one [Pupil focus group St David's School].

These views reflect staff views suggesting teachers' commitment to the value of PSE and the importance of supporting pupils' health and development. However, pupils at Oakwood School criticized the limited availability of healthy food options, and this was a view all focus group participants agreed on enthusiastically. Indeed it seemed that pupils noticed how their schools' food provision contradicts the advice about healthy eating they are being given in their lessons. In contrast to the healthy food options described by pupils at St David's School, pupils at Oakwood School agreed that their school predominantly offers unhealthy foods:

They only got one bowl got like one basket of salad [...]cos they only sell pasty and pizza at breaktime [...] yeah selling lots of junk food [...] they should sell fresh fruit [...] only got donuts and things

[...] they should have fruit and vegetables [Pupil focus group Oakwood School].

These perceptions connect to other data collected at this school, suggesting that staff appeared to consider PSE as marginal responsibility. PSE delivery appeared to lack continuity and there did not seem to be any visual integration of PSE at Oakwood School. These findings illustrate the impact of head teachers' reluctance and consequent decision-making about contextual arrangements as a barrier to policy implementation (Abbott et al. 2011).

In contrast, some of the focus group participants at Meadow and St David's School talked of their own experience of practices they have developed to help them eat healthily, and they negotiated amongst themselves about how changes could be made in practice. These experiences indicate how health knowledge was being applied to their lives, such as the decision to eat fruit instead of additional sweet or savoury snacks between meals, and the identification of opportunities to build in physical activity into everyday life. Pupils recognised that they have a certain level of self-control in ensuring they eat healthily. This realisation might also reflect adult discourse:

It's not up to the school to give you healthy things you can bring them if they don't provide it you can like do it yourself you can bring an apple into school [Pupil focus group St David's School].

The suggestion of bringing healthy foods into school was responded to with concerns that this requires considerable organisation and planning. In families where both parents leave for work early in the morning it was felt that health behaviours might be difficult for pupils to implement:

You got to be really organised [Pupil focus group St David's School]

Pupils' recognition of the importance of their own role in shaping their own health behaviours indicated an understanding of health messages, and their

ability to apply it to their own lives. For example, some reported on conscious decision-making to ensure they eat healthily:

I know I had a biscuit and I was thinking I'm still hungry and didn't have enough of that biscuit but but I'm thinking shall I have another one shall I have an apple [...] everyday if I go hungry if I'm still hungry I have an apple or an orange [Pupil focus group Meadow School]

Pupils also recognized that everyday life in school can provide opportunities for regular physical activity. There was an agreement among focus group participants at Meadow School that the organisation of lessons, which requires pupils to walk long distances during short breaks, is an opportunity to enhance their levels of physical activity:

Running every day to class [...] one day we'll have art and the next one we'll have English we'll run from the one side of the school to the other side of school [...] with all the stairs and in the school it's making us quite fit like flying up the stairs you wanna get to another lesson so [...] going down by the time you're in the lesson you're holding on to the side of the wall like that [indicating exhaustion] [Pupil focus group Meadow School].

Some of the pupils appeared to have understood health knowledge provided to them in school or elsewhere, and were able to apply it across contexts. Their experiences seemed to indicate some planning of healthy behaviours and the recognition of opportunities for health behaviours, which highlighted some elements of cognitive and behavioural contributors to self-regulation. Such considerations, suggesting the application of health knowledge across contexts, were particularly evident from pupil focus group data collected at St David's and Meadow School. As previously noted, key contributors to self-regulatory behaviours may be evident through self-monitoring, goal setting and self-reactive influences (Bandura 2005). Pupils' awareness of their own health behaviours, recognition of how they might change these and active engagement and negotiations in planning to change these behaviours provided examples of these. Whilst

some of these might be linked to lesson processes observed at St David's School, Meadow School focus group data appeared to be less in line with a smaller number of competency-focused lesson exchanges that were observed. Findings from lesson observations are presented in the next section.

7.3. Classroom processes

Content analysis of lesson transcripts aimed to explore the characteristics of classroom talk and identify the types of teacher-pupil exchanges that occurred during the lessons. It also sought to examine the extent to which lessons incorporated competency-focused elements identified elsewhere as supporting the development of self-regulation such as goal setting and self-monitoring. A performance focused policy context was evident in the types of initiation-response-follow-up exchanges (IRF) that took place between teachers and pupils. Classroom talk was mainly characterised by performance-focused exchanges (470 IRF), with fewer being competency-focused (109). An additional 50 exchanges were related to administrative tasks or discipline, unrelated to the lesson.

7.3.1. Performance-focused pedagogic discourse

Performance-focused pedagogic discourse was evident in exchanges focused on the transmission of facts and knowledge, whilst those that encouraged pupils' active involvement and facilitated learning were characteristic of competency-focused pedagogic discourse. The following lesson transcript extract presents an example of a performance-focused initiation-response-follow-up exchange (IRF), which took place within a lesson about healthy eating where the teacher asked factual questions about food items. Pupils were asked to name the food items displayed, and their response was either confirmed or corrected:

Teacher: who knows what actually keeps your bones strong? What's in milk?

Pupil 3: calcium

Teacher: Calcium excellent.

[Oakwood School, lesson 3]

Such performance-focused exchanges encouraged pupils to give one-word responses, which would correspond to the way in which the recall of knowledge is examined in core curriculum subjects. Performance-focused exchanges were further categorised into IRFs that were characterised by either a) fact transmission, b) teacher guided exchanges, or c) a focus on visible outputs, in order to gain a more detailed insight into lesson processes. The majority (330) of these were about a transmission of facts, asking pupils to recognise and name food items or giving them information such as the fact that blueberries contain vitamin c, or that one should eat 5 portions of fruit and vegetables per day:

Teacher: next one along, [...]

Peter: pepper

Teacher: pepper, it's a red pepper, absolutely you can get green peppers yellow peppers, orange peppers

[Elmhurst School, lesson 2]

The predominance of such knowledge-focused, fact-transmission type exchanges reflects the strong influence of a performance-focused policy context, which has been found to shape implementers' sense-making of PSE policy and views about classroom practice. These findings are in line with earlier arguments about the influence of a performance-focused policy context on pedagogic practice (Bernstein 1990; Whitty 2002).

Teacher guided exchanges about competencies or facts occurred in 85 (performance focused) exchanges, where the teacher clearly retained a guiding role but frequently appealed for student participation. For example, such exchanges took place in the second 'Healthy Eating' lesson at Elmhurst school, during which the teacher asked pupils about what they

have learnt in the preceding lesson, and explores their understanding of why they think people eat:

Teacher: keep you strong, yes, Katy?

Katy: so you won't get ill

Teacher: so you won't be ill, keep you healthy and then if you are eating a balanced diet and if you are feeling unwell that helps you to get better quicker. Mark?

Mark: fitness

[Elmhurst School, lesson 3]

Lesson talk about visible outputs was present in 55 (performance-focused) exchanges. These were usually explanations about how worksheets are to be completed or requests for pupils to read out what they have written. One lesson about friendships revolved almost entirely around the completion of a worksheet and the subsequent comparison of 'votes' of what pupils had put in as the most desirable qualities in friends:

Teacher: Right, So I think, the most popular one - if you can write down numbers –

Pupil: makes me laugh,

Teacher: my friend makes me laugh the most popular one. Who was in here last? 7R were in here last, their most popular one was 'makes me laugh'. And 7D were in here first, their most popular one was makes me laugh. Which is interesting, ok?

[Oakwood School lesson 1]

The large proportion of exchanges about worksheet completion reflects findings from interviews with staff. Particularly LEA coordinators and head teachers noted that the use of worksheets is an undesirable but popular choice although teachers use such materials in an attempt to deal with uncertainties about how to best deliver PSE and to avoid discussions and difficult questions. These uncertainties were noted to be the result of the multi-level influences on situated sense-making of policy, including Estyn inspections requiring written evidence of lesson activities. They demonstrate the impact of contextual constraints in the form of school arrangements and

staff motivation on policy in practice (Whitty 2002; Abbott et al. 2011; Watkins et al. 2008). Whilst the elicitation of such one word responses to closed fact-focused questions might help pupils to develop health knowledge, this is unlikely to influence any other intrapersonal determinants of health behaviours. The extent to which competency focused pedagogic exchanges occurred in lessons is examined in the following section.

7.3.2. Competency-focused pedagogic discourse

Competency-focused IRFs occurred where teachers encouraged pupils' active engagement with the lesson content. For example, as part of a PSE lesson aimed at making pupils aware of how to deal with money, the teacher introduced a task which required pupils to negotiate and communicate with one another in order to agree on a Christmas shopping list for £100:

Teacher: It's your opportunity now to go mad. Alright? It's Christmas time, Father Christmas is awaiting your letters. Ok. His chimney now is waiting to receive your letters. But! Credit crunch has hit Father Christmas, alright? And he can only spend a hundred pound on you each. Right. So. You can look for what you want in the Tesco brochure, but you can only have up to a hundred pound. Make a list here with how much your item is, then you need to total it. Ok. Now then, we're going to have to do some quick looking here, right all of you can start your lists.

Pupil 4: some Christmas trees cost less than £50, so I could...

Teacher: no, you are doing a Christmas wish list not a Christmas tree list

Pupil 6: yeah yeah a Christmas wish list.

Pupil 3: get a nice notebook.

Pupil 4: £4! It costs £4!

Pupil 3: I'll get a necklace and some jewellery

Teacher: you've got to find something else! Father Christmas hasn't got a spare £3.80. [...]

[Elmhurst School, lesson 1]

Such competency-focused exchanges were further categorised into a) modelling and reinforcement, b) active involvement and collaborative learning, and c) goal setting and self-monitoring. The focus on these categories emerged from the literature review presented in Chapter 1. This has shown goal setting, self-monitoring and self-reactive influences to have been effective in interventions aimed at enhancing self-regulation (Bandura 2005). These elements have also been shown to be important forms of competency-focused pedagogy (Hmelo-Silver 2004). This section sets out where such exchanges occurred in lessons that have been observed. 11 exchanges sought to reinforce pupils' responses through praise or criticism, whilst modelling occurred in 52 of competency-focused exchanges, where, for example, teachers talked about their own health behaviours:

Teacher: this, is actually my fav-, well oh I can't really say that cos I really like carrots, its one of my, its in my top five favourite vegetables.

Pupil 1 what's your first favourite vegetable?

Teacher: its got to be carrots, I could eat carrots all day long I love carrots

[Elmhurst School, lesson 2]

Across the whole sample of lessons there were 30 competency-focused exchanges that explicitly promoted pupils' active involvement and collaboration within the lesson. For example, these were activities prompted by the teacher where pupils were grouped and then asked to complete a certain task through collaboration and negotiation. One example was provided by the aforementioned extract showing how the teacher created a scenario for pupils to budget their Christmas shopping. Another example was taken from a lesson dedicated to dealing with problem scenarios of young people who experience difficulties with their friendships. The task

required pupils to work in small groups and develop advice on how to resolve these problems:

Pupils were given 10 to 15 minutes to do this before presenting the problem and the solution to the rest of the class. The teacher put an e-chalk timer onto the screen to help pupils monitor their own progress during the task. The assistant teacher was going around, probing pupils' understanding of the problems. One of the problem scenarios concerned a boy who complained that the other boys in his class are making fun of him because he spends most of his afternoons with homework instead of going out. He finds it difficult to keep up with school but also wants to remain friends with those boys.

The group advised that this boy should find other friends, possibly by joining a club to find new friends. Other recommendations were that the boy should stick to it and still do the homework, that he should ask his friends whether they could do the homework together. It was also suggested that they could go out earlier in the afternoon and then do the homework in the evening at home when it's dark. However, the group also noted that the boy might have been given strict rules by his parents who want him to do the homework first. In response to this, one pupil in this group talked about his experiences when moving to the town: that trying to find new friends was very hard but he has managed to do so and recommends not to give up. The teacher concluded that this is really good advice, a very good variety of things.

[St David's School, extract from speed written lesson notes⁷ lesson 3]

⁷ Speedwriting was used to record lesson exchanges in St Davids' school as I was not permitted to electronically record the lessons. Parents were concerned that this might limit pupils' ability to discuss sensitive issues freely. The extract presented here represents a condensed description of the original speedwriting notes.

Goal setting and self-monitoring was encouraged in 16 of the competency-focused exchanges that were observed, largely in relation to timing of task completion and progress within the lesson activity. In one lesson related to personal development, the teacher asked pupils to write down specific goals for the following year, although there was insufficient time to encourage pupils to think about how to achieve their goals and monitor their progress:

Individually think of one thing that you would like to achieve in the future [Meadow School, lesson 3]

Such competency focused exchanges were evident in a small proportion of lesson talk, whilst the majority was teacher-centred, performance-focused. However, there were variations among the four schools, and it became evident that the largest number of competency-focused lesson exchanges (active involvement, goal setting, modelling, reinforcement and collaborative learning) was observed in lessons delivered at St David's School. Lessons observed at Meadow, Elmhurst and Oakwood School incorporated such competency-focused exchanges only to a limited extent. To some extent these patterns seemed to correspond to other data collected at these schools. The head teacher, school level PSE coordinator and classroom teacher at St David's School viewed PSE as a way to help pupils acquire and develop important skills. All three participants interviewed at this school explained that they thought PSE lessons should engage pupils, encourage involvement, interaction and discussion. Organisational arrangements for PSE provision appeared continuous with dedicated staff delivering the subject on a regular basis to pupils they know. Conversely, the small number of competency-focused exchanges observed at Elmhurst and Oakwood School seemed to be in line with other data collected at these schools. Head teachers at these schools saw PSE as a way of compensating for inconsistency pupils might experience at home or as complementary to the main curriculum, offering opportunities to cover issues for which there is otherwise no time. School level PSE coordinators in both these schools highlighted the importance of creating interesting sessions to retain pupil attention and indeed attendance. This focus on entertaining lessons was reiterated by the classroom teacher at Elmhurst School, whilst the classroom

teacher at Oakwood School noted that PSE is neither his responsibility nor his subject, and that he sees it as dissociated from the curriculum and teaching. Particularly at Oakwood School, arrangements for the provision of PSE seemed less continuous with three PSE days per academic year during which the normal timetable is suspended and staff are allocated to deliver short PSE sessions.

It was evident that some of the lesson exchanges that have been observed may have the potential to influence intrapersonal determinant of health behaviours, such as a deeper understanding of knowledge through the generalisation of knowledge across contexts, or the consolidation of knowledge and behaviours through modelling and reinforcement (Bandura 2005; Dewey 1938; Hmelo-Silver 2004). The extent to which school teaching spaces promoted appropriate lesson processes are explored in the next section.

7.4. Re-emergence of policy in organisational arrangements: physical classroom characteristics and timetabling

7.4.1. Seating arrangements in PSE teaching spaces

PSE lessons observed in all four schools took place in teaching spaces that were designated for other subjects and visible signals suggesting an integration of PSE were limited. Classroom layouts and their alignment to lesson tasks and teacher-pupil exchanges play an important role in facilitating pupil interaction and their engagement within the lesson (Marx 2000). Seating arrangements varied between the four schools. In three schools they suggested a focus on group work and discussion, although classroom processes corresponded to these only at Meadow School. The teacher at this school allocated pupils to spaces as they walked into the computer area of the library where PSE was delivered. During the lessons she encouraged them to move between the group working tables at the centre of the library and the computer desks located along the wall. These

arrangements remained the same across the three lesson observations, and are illustrated in Appendix 8 (Figure 1).

At Elmhurst School, pupils did not receive any instructions how to seat themselves. They chose their own spaces within a classroom layout with tables and chairs aligned for pupils to face each other. The layout is illustrated in Appendix 8 Figure 2, and was similar across the three lesson observations. All sessions delivered throughout the PSE day at Oakwood School were held in different classrooms although seating arrangements were similar, encouraging group interaction as illustrated in Appendix 7 (Figure 3). Pupils at Oakwood School did not receive any specific instructions where to sit. The informal seating arrangements in these schools appeared incongruent with the performance focus that seemed to dominate practice.

However, seating arrangements at St David's school were very different from those in the other three schools, suggesting a focus on individual work. The classroom was filled with rows of tables that seemed affixed to the floor with all chairs facing the front. Such a layout may be a remnant of the schools' original status as 'academic' as the PSE coordinator described it during the interview. The school had only become a 'true comprehensive' following a change in catchment area postcode approximately two years prior to data collection. Upon arrival, pupils were instructed to sit according to their 'English seating plan'. Pupils located themselves within this setup as illustrated in Appendix 8 (Figure 4). This seating arrangement was similar across all three lessons observed at this school. However, pupils were encouraged to move their chairs, turn around to form groups and discuss during the lessons. This facilitation of group interaction by the teacher seemed in line with other data collected at this school. Staff views about practice suggested an emphasis on collaboration. In light of earlier arguments for the role of seating arrangements in encouraging pupil participation (Marx et al. 2000; Wannarka and Ruhl 2008) arrangements in the four participating schools did not appear to correspond to the lesson processes that were facilitated. The extent to which such seating

arrangements corresponded to other physical classroom characteristics is considered in the next section.

7.4.2. Visual signals of PSE in classrooms

As explained earlier, visual signifiers are important in communicating the presence of a subject, the extent to which it is separated from other subjects and the expectations associated with it (Bernstein 1999). A policy context concerned with schools' performance in curricular subjects seemed to re-emerge in these visual characteristics of classrooms. PSE teaching spaces in the four case study schools were predominantly appropriated for the delivery of examined subjects, although there were some variations. As noted, each lesson of the PSE day that was observed at Oakwood School took place in a different room. Whilst there was subject-related information displayed in these classrooms, such as geographical and historical maps, there were no visual indicators of PSE being also part of the curriculum. This seemed to correspond to other data collected at this school, such as the schools' PSE policy being predominantly focused on justifying its approaches to PSE delivery to external readers. Similarly, head teachers as well as PSE coordinators view PSE as a means to support or complement the main curriculum, located at the bottom of the 'subject pecking order'. Classroom teachers perceived PSE as dissociated from everything else and as something that falls outside their area of responsibility.

In comparison, some more integration of PSE was evident in the other schools. PSE lessons in Meadow School were delivered in the school's library. Whilst no explicit indication of PSE integration was visible, there were a number of posters from official organisations displayed offering advice about bullying and other health or well-being related issues, signposting to relevant agencies. This corresponded to other data collected at the school, suggesting staff commitment to PSE and the view of PSE playing an important role in supporting pupils' development. PSE-relevant signifiers were also visible in St David's School, where PSE was taught in the classroom in which the teacher normally held her English lessons. The

walls were covered with posters produced by pupils and evidence of group activities to enhance self-development, such as records of discussions around pupils' job aspirations and corresponding self-analysis of the types of skills required. Whilst this may be interpreted as reinforcing the importance of performing well in core curriculum subjects, it also reflected knowledge and skills very much relevant to PSE. As with Meadow School, these observations about visual integration corresponded to other data from this school. Head teachers at both schools saw PSE as important in pupils' development, there was consistency in staff who was allocated to teaching PSE, and who viewed PSE as an important opportunity to facilitate pupils' skill development. The PSE policy in both these schools appeared to be focused on supporting staff in delivering the subject.

In contrast to these observations, PSE was very explicitly visible in the classrooms at Elmhurst school. Whilst they were characterised by subject-specific displays, posters or artefacts (for example signalling the dominance of Chemistry or Religious Education), there was also an extensive display of PSE symbols stuck to the wall around the whiteboard to remind pupils of the importance of integrating relevant PSE skills into curricular learning. One poster was called '*Challenge Wall*' showing callouts with useful advice: '*think about how you solved a problem*'; '*make a list of what you have learnt in this lesson and how you learnt it*'; '*try the extension task*'; '*help another pupil with their work*'; '*think of some questions you would like to ask about the topic*'. There was also a poster with PSE logos and visual links to specialist Chemistry subject content.

However, this explicit visual integration of PSE into curricular teaching spaces at Elmhurst School did not appear to link to other types of data collected at this school. The PSE school policy was very brief about practice and predominantly focused on justifying compliance to external stakeholders rather than providing guidance for school staff. The head teacher and the PSE coordinator considered PSE as complimentary to the main curriculum. Staff views about classroom processes appropriate for PSE were focused on providing a variety of approaches to retain pupils'

interest rather than on fostering the development of important skills. The extent to which these patterns are reflected in timetabling arrangements is explored in the following.

7.4.3. Timetabling arrangements and staff allocation

The predominant influence of curricular priorities that was evident from LEA and school staff perceptions about practice re-appeared in observations about how PSE was timetabled in the four participating schools, suggesting a certain extent of marginalisation of the subject, particularly at Oakwood and Elmhurst school. Table 6 summarises the lesson content coverage and the allocation of teachers in the lessons that have been observed. An asterisk (*) indicates which teacher has been interviewed where more than one member of staff delivered the lessons. PSE lessons at Elmhurst school seemed to be delivered twice per term, whilst Oakwood school provides three PSE days per academic year. PSE lessons in Meadow- and St David's School are delivered on a fortnightly basis. There seemed to be more continuity in how these two schools provide PSE, apparent through regular time intervals between lessons and support of PSE through other activities within the school. However, PSE was less frequently delivered than other subjects. This reiterated the prioritization of main curricular subjects that was evident from the interview data, suggesting that the integration of PSE into a busy school timetable is difficult and that it is usually the subject that may be timetabled after all examined subjects. Variations among the four schools seemed suggestive of schools' discretion about how to implement PSE.

There were also some between-school variations in the allocation of staff to delivering PSE, in line with findings from the interview data. It seemed that more continuity was evident at Meadow and St David's School, where PSE lessons were delivered by the same teacher throughout the year. Whilst there was a dedicated PSE teacher at Meadow School who was responsible for PSE across the school, lessons at St David's School were delivered by an English teacher who normally teaches the same year 7 groups and who

also delivers learning skills lessons to these pupils. These arrangements differed from those observed at Elmhurst and Oakwood School: The first lesson at Elmhurst School was delivered by a Religious Education (RE) teacher who, at the same time, was form tutor for year seven. The second lesson was delivered by a Science classroom teacher, whilst the third lesson was again delivered by the RE teacher. Still more variation was evident in the PSE day arrangements at Oakwood School where all members of staff were allocated to delivering the same lesson to all groups throughout the day: the first two lessons were delivered by members of staff who normally deliver Science and Technology or History to years 9-11 and who were not familiar with the year 7 group attending their sessions. The third lesson was called 'Healthy Hearts' and was divided into two individual sessions that were delivered by visiting nurses from the local public health team.

Therefore, arrangements in terms of timetabling and staff allocation suggested differing degrees of consistency with which the subject was delivered. These observations reiterate findings from LEA and head teacher interviews described in Chapter 6, suggesting that the priorities of a performance-focused policy context shape processes at the situated level of sense-making, such as organisational arrangements. Such inconsistencies may impact on the types of classroom exchanges or the quality of lessons. Whilst teachers at Meadow and St David's School knew the pupils, those at Elmhurst and Oakwood School would not necessarily be aware of their needs and therefore not necessarily tailor lesson content and processes.

However, the choice of topics that were captured in the small sample of observed lessons seemed less likely to be shaped by curricular priorities. Variations in lesson content and topic coverage appeared to reflect differences in school staff beliefs about pupil needs in relation to the schools' contexts. This was particularly evident in Meadow School, where two of the three lessons that were observed were about pupils' personal development with regards to careers, personal qualities and skills. These encouraged them to actively think about the skills they have or are developing through extracurricular activities, and what they aim to achieve

during their remaining time in secondary school. The lessons also encouraged pupils to set up a Careers Wales profile and consider future careers options. At the beginning of the first lesson the teacher ensured pupils are clear about the importance of considering career options at this stage. The third lesson, which was also the one preceding the focus group, consisted of two parts: a) an introduction to the library, how to search for books, the range of topics available and how borrowing and returning works; and b) a discussion on bullying in relation to the anti-bullying week. The session intended to follow up from the school assembly held in the morning, during which the teacher presented a very moving poem about a pupil who saw suicide as the only way out of his bullying experience. Discussions within the lesson were about possibilities for dealing with bullying, what to do about friends being bullied, and an introduction to support mechanisms available in school such as a 'bullying box' where anonymous notes can be put if someone has any concerns. Members of staff at Meadow School mentioned school assemblies as an opportunity to support PSE provision within the school. These observation findings link to interview data, which suggested that staff at Meadow School saw PSE as an important way to address issues within the local community, such as bullying, antisocial behaviour and high levels of unemployment. Due to being familiar with the schools' catchment area school staff considered these to be priorities.

Staff at St David's School also regarded PSE as an important opportunity to talk to pupils about issues their parents might be reluctant to discuss with them, and to enable them to make adequate life and health choices. This seemed reflected in the choice of topics in this school: The first lesson was aimed at encouraging pupils to think about puberty, to highlight potential embarrassment they might encounter as they grow up and notice changes in their own bodies, to encourage them to deal with their own development in a mature way and to speak to people they trust if they are worried about anything. The second lesson was about friendships and pupils were encouraged to think or talk about their friends, how they met them, and to what extent these friendships were seen as mutual. The third lesson was

concerned with scenarios of people who had problems with their friendships. Pupils were asked to work in groups and to assume the role of an ‘agony aunt’ to suggest solutions to these problem scenarios, which were subsequently discussed in class.

The choice of lesson topics observed at Elmhurst and Oakwood seemed more informed by the themes suggested in the PSE framework documentation than by pupil needs as perceived by teachers. The first PSE lesson observed at Elmhurst School aimed to inform pupils about how to deal with money and about the importance of budgeting and saving. The second and third lessons were about healthy eating, aimed at teaching pupils about the importance of eating healthily, recognising healthy fruit, and providing an opportunity for pupils to taste different types of fruit and vegetable. The three lessons that were observed⁸ at Oakwood School were concerned with friendships, career development, and cardiovascular health. The objective of the first lesson was to encourage pupils to think about what friendships are, how good friends should behave, and to explore what the most desirable qualities in friends might be. The second lesson was called Progress File, which sought to provide pupils with information about career decisions and choices, what desirable attributes they should have to be successful in getting a job and how they should behave in an interview. The lesson also aimed to introduce pupils to the Careers Wales website, which pupils were told to work through in their own time.

As mentioned earlier, the third lesson at Oakwood School incorporated two separate sessions. A ‘healthy eating’ session engaged pupils in a game where the class was to sit around a table with a large poster displaying the ‘Eat well plate’ showing which foods should be consumed in which proportions. At the front was a small table with silicone models of food items such as apples, carrots, a pot of yoghurt, fish, noodles, bread. The

⁸ As noted earlier, I attended the whole PSE day of 7 40-minute sessions. In order to align the data collection and analysis from this school to the other four schools and ensure it remains within adequate scope, three lessons were selected that appeared to be most relevant to the overall focus of the PhD study: young people’s health behaviours specifically, or personal and social development more generally.

nurse who delivered the session asked questions about each category of food on this plate (e.g. What are proteins for? What makes milk so healthy?) and upon receiving the correct answer she permitted pupils to place one of the silicone models from the front into the correct category on the poster. The second session (on smoking) involved playing a game of snakes and ladders where pupils had to answer multiple-choice questions about smoking (e.g. How many poisons are in cigarettes? What is the legal age to buy cigarettes?) in order to be allowed to roll a dice and move forward in the game. Teachers felt that such interesting and entertaining lessons ensure pupils remember the lesson content although they did not seem to consider that promoting the retention of facts in this way might not necessarily help pupils understand the meaning and apply the knowledge (Bernstein 1990).

These arrangements at Oakwood School appeared to show less consistency than those observed elsewhere, and they may provide fewer opportunities for pupils to consolidate knowledge and engage with lesson content. They also seemed to reflect other data collected at this school, suggesting the strong influence of a performance-focused policy context on practice and on implementers' sense making. The limited time available for delivering PSE sessions at Oakwood School alongside the need to ensure topic coverage as suggested by the Welsh Government's PSE framework documentation reflects the challenges mentioned during interviews with school staff. The need to convey such a breadth of information in short sessions is likely to generate a pedagogic discourse focused on the transmission of knowledge and facts, rather than the development and consolidation of important competencies. Variations among schools in terms of lesson content, timetabling and staff allocation also seemed to correspond to findings from the interview data, illustrating schools' discretion about how PSE is to be implemented in practice. As noted by LEA coordinators, such a level of autonomy, largely due to the 'semi-statutory' status of the PSE framework, can lead to schools' prioritization of examined subjects, and marginalise the delivery of PSE.

7.5. Chapter summary

PSE practice in response to the Welsh Government's framework was examined by considering several elements. Practice encompassed physical characteristics such as seating arrangements, visual integration of PSE into the classroom, and timetabling arrangements. It was apparent that a performance-focused policy context, which seemed to permeate all levels of situated level determinants (Chapter 6), re-emerged in these different elements of practice, albeit with some variations among schools.

Pupils at Oakwood School commented that they dislike performance focused pedagogic discourse due to insufficient opportunities for involvement and because they felt such lessons do not help them understand what is taught to them. Their experiences of PSE lessons also indicated that such classroom processes may not support them in linking lesson content to their lived experience. Nevertheless, data suggested that the majority of pupils held positive attitudes towards PSE-related topics and health behaviours. They considered the short- and long-term consequences of health behaviours, evaluated school-based opportunities to engage in healthy behaviours, and explained how they self-regulate their own health behaviours. These views also provided an insight into pupils' ability to understand and apply health or PSE related knowledge across contexts. Whilst these self-reported cognitions and behaviours could not be linked to the lesson processes that were observed, they appeared to be in line with some of the patterns that have been identified in other practice and interview data.

On the whole, a small proportion of competency-focused lesson exchanges was observed, with some similarities to elements of classroom exchanges that were applied in interventions aimed at promoting self-regulatory behaviours. Some of these promoted pupils' active involvement and collaborative learning, facilitated goal setting and self-monitoring, as well as modelling and reinforcement. The majority of such exchanges were observed during lessons at St David's School, which involved more interaction among pupils than in any other school. However, lesson

exchanges between teachers and pupils at the other three schools were predominantly characterised by a transmission of information or facts, by teacher-guided exchanges or lesson talk about worksheets. This predominance of fact-focused classroom processes reflected curricular priorities that were also evident from other practice data.

Seating arrangements in three of the four schools were informal and apparently intended to promote pupil interaction and discussion, although this was not reflected in the lesson processes that were observed. In one school, however, the classroom layout was more aligned to individual work whilst the teacher facilitated interaction and discussion (St David's School). Although these classroom seating arrangements did not appear to reflect the influence of a performance-focused policy context, schools' concerns with exam performance was more evident in other elements of practice. For example, a lack of visual signifiers of the integration of PSE in classrooms re-iterated the predominance of curricular priorities. This was particularly evident at Oakwood School, where PSE was timetabled infrequently and limited to quarterly PSE days. Staff allocation at this school prioritized examined subjects. The choice of lesson content appeared to be primarily focused on fulfilling suggestions of the PSE framework. These findings reflect those from other data collected at Oakwood- and Elmhurst School, as presented in Chapters 5 and 6. School PSE policies produced by both these schools appeared to be focused on demonstrating compliance with Government requirements. Head teachers considered PSE as either something complementary to the main curriculum or as an opportunity to compensate for inconsistency pupils might experience within a disadvantaged catchment area. It also became evident that head teachers' views of PSE and consequently their decision-making about school arrangements for the provision of the subject can shape the attitudes of staff at school. The disconnectedness of PSE from the remainder of the curriculum was particularly apparent at Oakwood School, illustrated by the classroom teacher emphasizing that PSE is neither his responsibility nor his subject. The practice data presented in this chapter demonstrates how these sense-making processes at different levels have shaped practice.

Although a performance-focused policy context seemed to shape situated sense-making of PSE policy and views about practice, in two of the four case study schools (St David's- and Meadow School) it was evident that head teachers and staff were committed to the value of PSE for pupils and saw the importance of promoting their health. As a result, there appeared to be more continuity in terms of timetabling arrangements and staff allocation to delivering PSE. A dedicated member of staff delivered PSE throughout the school, or lessons were delivered by the teacher who also delivers other subjects to pupils. These teachers seemed familiar with pupil needs, and this reflected in the choice of lesson content aimed at addressing those needs. Pupil focus group data in these schools suggested more understanding and application of health knowledge than in the other two schools. Practice data from these schools seemed to reflect other findings. As shown in Chapter 5, the PSE school policies produced by St David's and Meadow School were focused on supporting staff and concerned with pupils' development of important skills. Head teachers at both schools emphasized the importance of PSE for pupils' development and achievement. At both schools there were dedicated members of staff responsible for the organisation and regular, continuous delivery of PSE. Their views of PSE and how it should be delivered reflected those voiced by head teachers, that it should involve and engage pupils and support them in acquiring important skills. Particularly at St David's School it was evident that school staff attitudes towards PSE re-emerged in practice. It appeared that school staff commitment might be linked to higher quality provision.

The variations among schools appeared to be the result of the extent to which the semi-statutory status of the PSE framework leaves the implementation of this policy at the discretion of individual schools, as suggested by LEA staff. Although the scope of this study did not permit a direct linkage between lesson processes and intrapersonal determinants of health behaviours, lesson observations were able to identify some lesson processes that may show similarities to elements of interventions aimed at promoting self-regulation. The patterns identified in the data illustrate some important influences on practice, to help identify ways in which classroom

talk might influence intrapersonal determinants of health behaviours. The next chapter discusses these findings in the context of the literature reviewed.

CHAPTER 8 Discussion

The aim of this final chapter is to summarize the different elements of this study before discussing how the findings relate to theory, and what their implications are for policy, practice and further research. Enhancing the effectiveness of school-based health education interventions by attending to pedagogic processes offers an important opportunity for creating sustainable health behaviour change. Two literature review chapters sought to examine the links between the different, but relevant and interlinked areas of inquiry related to school-based health education, pedagogy and implementation processes. Evaluations of school-based health promotion interventions based on the HPS approach have identified a number of limitations (Formby and Wolstenholme 2012; McCuaig et al. 2012). Although successful in enhancing young people's health knowledge, they were less effective in changing behaviours and health outcomes (Patton et al. 2006; Inchley et al. 2007; Begoray et al. 2009). This limitation has, in part, been attributed to lesson processes (McCuaig et al. 2012). In order to examine how health education lesson processes might be enhanced and to understand the link between pedagogy and health behaviour change, a literature review was conducted at the outset of this study. It has previously been shown that self-regulatory behaviours have the potential to strengthen the link between health intentions and behaviours. Self-regulatory behaviours might be promoted through goal setting, planning and self-monitoring (Bandura 2005). These processes also represent elements of competency-focused pedagogic approaches (Hmelo-Silver 2004), and might have the potential to enhance health education lesson processes. However, the implementation of such pedagogic approaches in school classroom practice is determined by a complex set of influences (Spillane et al. 2002).

Therefore, the overall aim of this study was to identify processes that could improve school based health education practice using a social ecological examination of the implementation of the Welsh Government's Personal and Social Education policy and how it emerges in practice. In order to understand how the Welsh Government's PSE framework describes

practice, specifying content and processes of PSE lessons, the characteristics of the relevant policy documentation were examined. To assess whether these characteristics re-emerge at a local level, school policies from the participating schools were analysed. Interviews with implementers about these policy documents and PSE practice aimed to understand how policies are perceived and what influences might shape their interpretation of these policy documents. In order to describe resulting practice in more detail, focus groups with pupils aimed to gain an insight into their experiences of PSE lessons and to what extent they understand and apply PSE-relevant and health knowledge. Pupil focus group data was supported by lesson observation data about the PSE lesson context, such as classroom settings and the types of teacher pupil exchanges that occurred during the lessons. The selection of case study schools aimed to include examples of polar types or extreme ends of a continuum by attempting to include schools that were located in the highest and lowest free school meal (FSM) entitlement quartile. This approach sought to account for possible variability due to contextual influences.

Analysis of the Welsh Government PSE framework documentation and school policies has highlighted a number of characteristics that prevent the effective implementation of PSE. It was evident that a number of national policy characteristics were reproduced in these school policies, whilst it was also apparent that schools use a certain level of discretion in how they develop their own policies and that school staff are more aware of the practical implications. Interviews with implementers reiterated some of the limitations that have been identified from the policy document analysis. From professionals' perceptions of PSE policy and practice it was evident that an interaction of policy-, organisational- and intrapersonal level influences shape sense-making during implementation of PSE policy. It is apparent that a focus on performance in secondary schools has placed PSE at the bottom of a 'subject pecking order'. As a result, there are limitations to the resources, curriculum time and staff allocated to the subject. Implementers' views about teaching PSE are shaped by the approaches they use to teach examined subjects, and these approaches have previously been

found to be incompatible with the aims of PSE. Pupil focus group data and lesson observations re-iterated the predominance of performance focused pedagogic discourse in PSE lessons. However, data from one of the four participating schools demonstrated the potential influence of agency within the restrictions of the secondary education context and its focus on graded performance. Head teachers' views of PSE are important and consequent decision-making about school arrangements appeared to influence the attitudes of school staff. As a result, the PSE coordinator and classroom teacher at this school appeared to be committed to PSE. They ensured its delivery was continuous, lessons were appropriate for the pupils and their needs and of high quality. The findings from this socio-ecological examination of the implementation of the Welsh Government PSE framework offer an insight into influences at policy-, organisational-, and intrapersonal level on practice and how it is experienced. Therefore, all research objectives have been met. Table 5 provides an overview of these research objectives, the approaches taken alongside the data that has been generated, as well as a brief summary of the findings.

Table 5 Key findings for research approaches and research questions

| Objectives | Approaches and data | Findings |
|--|---|--|
| To examine how the Welsh Government's PSE policy framework describes practice (aim of PSE, the content of the lessons as well as the processes for its implementation within the school and the lesson). | Analysis based on principles of critical discourse analysis of Welsh Government's PSE framework and supportive documentation. | Vague presentation of goals, ambiguity about policy in practice, disengaged presentation of roles of main actors. |
| To identify how the PSE policy framework is reproduced at school level (aim, lesson content and the processes for implementation within the school and the lesson) and how the organisational context of the school might influence this reproduction. | Analysis of school policies based on principles of critical discourse analysis. | Reproduction of Welsh Government policy characteristics, although more attention to organisational implementation, very limited focus on classroom practice. |

| | | |
|---|---|--|
| To examine how implementers view the PSE framework and school reproductions of it. | Interviews with LEA level coordinators, head teachers, school-level PSE coordinators, and classroom teachers, interview transcripts were analysed thematically as described by Alexiadou (2001). | Reinforcing ambiguity and perception of subject pecking order, lack of clarity about policy in practice. |
| To identify from representations of PSE policy how individual, social, organisational processes impact on implementers' sense-making. | Interviews with LEA level coordinators, head teachers, school-level PSE coordinators, and classroom teachers, interview transcripts were analysed thematically as described by Alexiadou (2001). | All influences at the situated level were shaped by a focus on performance, reinforcing a 'subject pecking order'. Associated concepts of teaching incompatible with PSE, perceived purpose and self-knowledge about practice shapes pedagogic approaches. |
| To understand pupils' experiences and perceptions of PSE lessons, and the extent to which these reflect understanding and application of PSE relevant knowledge. | Pupil focus group transcripts analysed thematically as described by Alexiadou (2001). | Lesson processes insufficient for involvement, disconnected from experience and curriculum, but recognise need and value of PSE, some evidence of understanding and application of health knowledge. |
| To describe the PSE lesson context such as classroom setting, the types of teacher-pupil exchanges during lessons including the proportion of competency-focused pedagogic exchanges. | Lesson observations (physical setting characteristics and lesson recordings). Lesson observation notes and sketches about physical setting characteristics as well as case study diary were analysed thematically. Lesson transcripts from recordings were transcribed and content analysed to generate a quantitative description of the distribution of different types of exchanges. | Limited visual integration of PSE into curricular subjects, topics varied and in addition to covering health-related themes they incorporated friendships, careers, and money. Teacher-pupil exchanges during PSE lessons were mainly focused on transmitting facts with very few exchanges characterised as competency-focused pedagogic discourse. |

This overview illustrates how uncertainties left by the PSE framework, and a performance focus of the policy context, filter through all levels of implementation as evident from the different data sources representing professionals' sense-making of policy and consequent enactment in practice. These findings have a number of implications. Recommendations on how to introduce more clarity within policy documents are provided. Suggestions are made how changes at the organisational level might create a more supportive setting for the delivery of PSE. Some elements of PSE lessons

observed or reported on also identified processes that might be supportive of health behaviour change, processes which might enhance school based health education interventions. In order to understand where these processes were observed and whether these might be linked to contextual influences, Table 6 summarises findings from each element of this study for each one of the participating case study schools. The findings summarised in this table illustrate how multi-level influences on policy implementation processes affect practice. They show that the characteristics of the national PSE policy framework influence the production of local PSE school policies. That the PSE framework lacks clarity and leaves scope for interpretation is evident in the variations among school policies. Those written by Elmhurst and Oakwood School were strongly aligned to the Welsh Government document and appeared to be primarily focused on demonstrating compliance with external requirements by justifying how PSE is being delivered. School policies written by Meadow and St David's School, on the other hand, seemed to be aimed at providing guidance for school staff.

The focus of school policies seemed reflected in how head teachers and PSE coordinators saw the purpose of PSE. Head teachers and PSE coordinators at Meadow- and St David's School regarded the subject as important in supporting pupils' academic and personal development. Head teachers at these schools also emphasized the value of having one person in the school responsible for PSE and that lessons should encourage pupils in the development of skills. PSE coordinators at these schools highlighted the importance of adapting lessons to the diversity of pupils and encouraging discussion and interaction. These views related to what classroom teachers considered as appropriate lesson processes. Provision of PSE in these schools seemed more continuous as the same teachers deliver all PSE lessons. Data from Elmhurst and Oakwood School suggested similar links, although less in support of PSE. Head teachers considered the subject as complimentary to the curriculum or something that compensates for support pupils might not receive otherwise, emphasizing that PSE will remain a low priority. PSE coordinators and classroom teachers at these schools were mainly concerned that lessons should be entertaining to ensure attention and

attendance. The classroom teacher at Oakwood School noted that PSE is not his responsibility and that he feels the subject is dissociated from the curriculum and pupils' lives.

Pupils' perceptions about PSE seemed in line with these patterns. Pupils at Meadow- and St David's School showed evidence of understanding long and short-term implications of health behaviours. Data from Elmhurst- and Oakwood School, however, indicated a certain extent of disengagement, lack of interest and only limited understanding of PSE- related issues. Pupils' experiences were considered as one indicator of practice in response to policy. Whilst this small dataset requires further validation, it might point to a number of multi-level barriers to effective PSE implementation.

The types of lesson exchanges and the appropriation of teaching spaces to PSE were taken as additional indicators of policy in practice. Lessons at St David's School contained more interaction among pupils than classroom exchanges observed in the other schools. This would be in line with other data collected at St David's School. However, the patterns that were observed across school policies, head teachers'-, PSE coordinators'- and classroom teachers' views as well as pupils' experiences did not necessarily reflect lesson data collected at the other three schools. Lesson exchanges at Meadow School were predominantly performance-focused, whilst those observed at Elmhurst and Oakwood School contained a certain extent of interaction. What might need to be taken into account is that the majority of lessons observed at Meadow School were focused on dealing with careers information and pupils' work on a web profile, and were therefore less comparable to lessons observed at other schools that dealt with health or personal development.

The characteristics of teaching spaces and the appropriation of these to PSE did not appear to link to the patterns across the different types of data described earlier. In Meadow-, St David's- and Oakwood School there was very little or no visible integration of PSE into teaching spaces. Teaching

spaces at Elmhurst School, however, contained a large proportion of physical signifiers suggesting PSE elements are being integrated into the main curriculum. Whilst the lack of visible evidence of PSE at Oakwood School might be expected, observations at Elmhurst School suggest less consistency with other data collected at this school.

Table 6 Overview of data collected from the four participating schools.

| Name of School | Meadow School (LEA1) | Elmhurst School (LEA1) | Oakwood School (LEA2) | St David's School (LEA2) |
|--|---|--|---|---|
| Characteristics of school policy | A very detailed, extensive document with a lot of thought given to lesson processes (based on the PSE framework suggestions). Particular emphasis was placed on supporting careers education. | Very much aligned to the Welsh Government PSE framework, very brief about practice and primarily focused on demonstrating compliance to external readers (rather guiding members of school staff). | Defensive, aimed at justifying the approaches taken and the changes that have been made. Also very strongly aligned to the Welsh Government PSE framework document with large sections copied and pasted. | Concise with focus on guiding staff within the school. |
| Head teachers' views on the purpose of PSE and how it should be delivered. | Purpose is to support pupils' development, important that one person within the school is responsible for PSE. | PSE is to compensate for what pupils don't get at home in such a deprived area. | Pecking order will remain, PSE days are there to stay and these sessions are used to compliment the main curriculum. | Focus on involvement and engagement and encouragement of the development of skills in pupils, one person in school responsible for PSE. |
| PSE coordinators' views on the purpose of PSE and how it should be delivered | Supporting pupils' development using lots of different ways to give the same message to a diverse | Ensure pupils' interest and attention is retained, PSE there to compensate for a lack of parental | Need to be aware of pecking order among subjects, syllabi dictate what happens in lessons, attendance | Facilitating and supporting pupils in their own personal development, discussion and interaction. |

| | | | | |
|--|--|---|---|---|
| | group of pupils. | support. | needs to be ensured and PSE sessions are there to complement the curriculum. | |
| Teachers' views on purpose of PSE and how it should be delivered | As above | Many different approaches to keep interest, different media, ensure lessons are entertaining. | Not their responsibility as PSE is someone else's subject, dissociated from curriculum, teaching and life in general. | Important to help pupils develop, encourage interaction. |
| Pupil focus group data | Discussion showed evidence of understanding short and long term implications of health behaviours, application of knowledge to other contexts. | Disengaged, commented that lessons should be more fun, very little interest in PSE and provided hardly any evidence of understanding. | Limited understanding, only some pupils showed genuine interest and engaged with the subject. | Understanding short and long term implications of health behaviours and evaluation of schools' efforts to facilitate health behaviours, application of knowledge to other contexts. |
| Physical environment | Hardly any appropriation of teaching space to PSE. | Plenty of physical signifiers to indicate the integration of PSE into the main curriculum. | No physical signifiers of the integration of PSE, very limited evidence of pupil engagement visible within the school premises. | Limited appropriation, whilst there is evidence of pupil engagement and support there was no explicit PSE focus visible |
| Lesson processes | Majority of lesson exchanges were performance focused, very little interaction among pupils. | Some interaction. | Different teachers with varying approaches. | More interaction among pupils than in any of the other schools visited. |
| Number of different teachers | Teacher a – Lessons 1, 2 and 3 | Teacher a* – Lessons 1 and 3 | Teacher a* – lesson1 | Teacher a – Lessons 1, 2 and 3 |

| | | | | |
|--|--|--|--|--|
| delivering the lessons that were observed. | | Teacher b – Lesson 2 | Teacher b – lesson2 Teacher c – lesson3 | |
| Lesson content (knowledge and skill development) | Lessons 1-3: Careers and personal development (knowledge, awareness and communication skills). | Lesson 1: Money (Decision-making and communication skills). Lessons 2 and 3: Healthy Eating (knowledge, awareness). | Lesson 1: Friendships (awareness). Lesson 2: Careers and personal development (communication skills, decision-making). Lesson 3: Smoking and healthy eating (awareness). | Lesson 1: Bodily changes during puberty (awareness, communication skills, empathy). Lessons 2 and 3: Friendships (problem-solving, communication skills). |

The findings from this study are discussed in the context of the literature in the following sections. Firstly, the influence of the policy context and policy characteristics on implementation processes is considered. Secondly, ways in which influences at the situated level (organisational, social and intrapersonal characteristics) shape policy implementation in practice are discussed. Thirdly, insights into practice (lesson processes and pupils' experiences) examine the re-emergence of these situated level influences. The conclusions drawn from this study represent implications for theory, policy practice and research.

8.1. Policy context shaping implementation processes

The implementation of the PSE framework was influenced by a large number of complex, interdependent processes located at different levels of influence, reflecting earlier conclusions from research into school policy implementation (Spillane et al. 2002). Such a perspective corresponds to socio-ecological frameworks, which emphasize the importance of

considering multi-level influences on health behaviours (McLeroy et al. 1988). The widest level of influence is the policy context in which new policies are to be implemented or in which interventions are to be realised.

The most important element of this policy context, emergent from all types of data, was the concern with measurable performance indicators in response to National Curriculum requirements: pupils' GCSE grades. The focus on achieving high GCSE grades seemed to permeate through all levels of situated sense-making; it informed organisational arrangements in schools, shaped head teachers' decision-making about time and resource allocation and influenced teachers' subject specialisation and their beliefs about the value of PSE within the curriculum, which, in turn, had an important influence on practice. Whilst timetabling in schools sought to optimise delivery of examined subjects, the time made available for the preparation and delivery of PSE was very limited, as were the financial resources to pay for PSE materials or related activities. These observations are in line with previous research suggesting decision-making about resource distribution tends to focus on maximising exam performance, such as the allocation of funding and support to pupils who were expected to achieve lower GCSE grades (Wilson et al. 2006).

These curricular pressures marginalising PSE were exacerbated by a recently introduced working time agreement, which limits the extent to which schools can ask teachers to cover lessons for colleagues who are off sick or away for training. If teachers are to take time off for professional development, schools are obliged to buy in cover teachers rather than ask colleagues. Due to the limited funding available, schools usually prioritize training opportunities that are relevant to teachers' specialist subjects. These findings connect with earlier suggestions that school arrangements are aligned to performance indicators where activities not directly related to examined subjects are seen as competing for valuable time and resources (Governali et al. 2005; West 2010).

Another consequence of this prioritization appeared to be that school staff, pupils and parents attributed a lower status and value to PSE than to

curricular subjects. This was particularly evident in two of the four case study schools where PSE was delivered via assemblies or dedicated PSE days during which pupils did not need to do any writing or use any books. However, in the other two schools PSE appeared to have a higher status. This was evident from the greater extent to which the subject appeared to have been implemented. The extent of implementation was evident, for example, in curricular arrangements that incorporated regular lessons which were delivered by a dedicated teacher, supported by resources allocated to delivering and integrating it into the curriculum. It was also reflected in views about practice that indicated teachers' commitment to the subject. These observations resonate with earlier arguments suggesting that adequate time and resource allocation can signal a higher status of a subject, and can create a stronger presence within the school (Goodson 1985; Whitty et al. 1994b). Whilst at the time of writing there does not appear to be any literature providing a direct linkage between the status of PSE and health behaviour change, a stronger presence of PSE within schools is likely to be reflected in pupils and parents attributing more importance to the subject. As a result, the content of lessons is more likely to be attended to (Whitty 2002). If these lessons provide adequate health knowledge delivered through competency-focused pedagogic approaches that offer pupils opportunities to develop relevant skills, then they might be more likely to influence health behaviours. Indeed, according to Markham and Aveyard (2003) the provision of health relevant information should draw on weakened classification and framing. They have argued that student-centred pedagogic practice offers pupils choices over the selection, sequencing and pacing of classroom activities. Such an approach, as Markham (2014) has argued, aims to facilitate pupils' greater understanding of concepts and development of problem-solving and self-reflective skills.

These findings also connect to conclusions from evaluation studies of the implementation of curricular health education in Australian schools, suggesting that health education was marginalised by a focus on examined subjects (McCuaig et al. 2012). Similarly, findings from examining the impact of PSHE in English schools highlighted that both teachers and pupils

regarded PSHE as less important than curricular subjects, which was reflected in organisational arrangements and resource allocation prioritizing other subjects (Formby and Wolstenholme 2012). These similarities, in particular to findings from England, appear to be due to similarities in the policy context, the National Curriculum for England and Wales, which sets out the standards and requirements schools have to fulfil (DfEE 2002). Although schools' individual results have not been published in league tables in Wales at the time of the study, a 'school banding system' has been introduced by the new Education Minister for Wales in 2011, replicating processes that have been in place in England for some time. Whilst the intention of this decision was to close the achievement gap between Wales and England⁹, it is likely to further increase pressures on schools to perform in national examinations, fostering a culture of competition rather than collaboration, emphasizing outputs over learning processes (Garratt and Piper 2008; West 2010).

Whilst it was apparent that the policy context, in particular a focus on exam grades, had a considerable influence on the implementation of PSE policy, this has not been acknowledged in the PSE framework documentation. No guidance about how implementers might deal with such competing priorities has been provided. The PSE framework is supported by guidance documentation which specifies the topics to be covered, ways in which these could be linked to main curriculum subjects and how schools should change arrangements to accommodate the delivery of PSE. One of the participating LEA coordinators remarked that this framework documentation offers a much more comprehensive guidance than what is available for other subjects. However, other implementers regarded this same documentation as very challenging. Indeed, the PSE policy possesses a number of other characteristics that create a barrier to effective implementation processes, preventing practice in the classroom from being shaped and experienced as intended. Ways in which these characteristics

⁹ According to the 2012 report published by the Programme for International Student Assessment (PISA), scores in mathematics, science and reading in Wales were significantly lower than scores in England, Scotland and Northern Ireland (<http://www.nfer.ac.uk/publications/PQUK02/PQUK02.pdf>).

might influence PSE practice and how such processes connect to previous research are explored in the next section.

8.2.PSE policy characteristics shaping sense-making

An examination of PSE policy documentation characteristics as well as implementers' perceptions of it suggested that the PSE policy framework documentation published by the Welsh Government lacked clarity. It provided vague and broad aims, remained ambiguous about how practice might be shaped in response to policy and displayed a number of contradictions. It has previously been found that the lack of clarity, the use of brief bullet point statements, vague objectives and non-measurable, informal approaches to assessment can lead to ambiguity and uncertainty among implementers (Cohen 1990; Spillane et al. 2002; Rosseau et al. 2006; McCuaig et al. 2012). Rather than being clear about the need and rationale for PSE in schools, the PSE policy document referred to other policy documents, made reference to learner entitlement and reiterated that schools hold statutory responsibility to protect the welfare of children and young people. Thus, implementers were either required to consult the original policy documents that were cited, or be satisfied that the main rationale for PSE might be part of the fulfillment of schools' statutory obligation to promote the welfare of children in their care. It did not, for example, explain the potential of developing important knowledge and skills for enhancing pupils' personal development. According to earlier arguments, such a lack of a clear, tangible rationale for a policy poses a barrier to effective implementation (Cohen 1990; Mazmanien and Sabatier 1981).

The rationale for PSE is followed by seven objective statements setting out what PSE seeks to achieve. These are broad, challenging and unspecific and were perceived as ambiguous by the majority of LEA and school staff. For example, one of these objectives is to '*equip learners to lead safe, healthy lives*'. In line with earlier arguments, such a presentation of goals or objectives as brief bullet point statements fails to adequately communicate underlying ideas to implementers (Spillane et al. 2002). The breadth and lack of specificity of these objectives does not clarify an expected level of

performance or specify outcomes. These objectives are neither measurable nor time bound, and their scope may be too challenging to be regarded as achievable and realistic. Such characteristics may undermine successful implementation, and are unlikely to lead to practice as is intended by the policy (Weldon and Weingart 1993; Matland 1995). The PSE framework documentation also remained vague about how these aims are to be achieved in practice. Explanations about practice were predominantly concerned with describing or listing the topics that are to be covered and the skills that are to be developed in pupils. Very limited effort seemed to have been invested into helping implementers gain an understanding of practice approaches they should use to develop pupils' skills in PSE lessons. It has been argued that external representations of policy documents will only have developed their meaning after implementers have actively engaged with the policy (Becker 1986; Latour 1990). Implementers' reflections about the PSE framework creating challenges and uncertainties, which are in line with documentary data analysis, illustrate that this active engagement with the policy has taken place.

Although emphasis has been placed on cross-curricular implementation, the PSE guidance documentation did not explain how schools might achieve this. It mainly listed the themes and topics to be covered and supplementary documentation provided brief information about how themes and topics relevant to PSE might be delivered in examined subjects such as English or Biology alongside a checklist encouraging subject teachers to 'map' their provision to PSE requirements. The framework did not offer any details about how this cross-curricular integration might happen in practice, in the classroom, within a lesson plan. There was also no acknowledgement of potential time limitations that might impact on the availability of lesson time in examined subjects to be devoted to PSE. The failure to consider such practical implications further undermined clarity about the intended form and function of PSE. This observation connects to earlier suggestions: policies that are unable to create such a clear understanding and links to existing practice are unlikely to facilitate effective implementation processes (White and Fredrickson, 1998; Star and Griesemer, 1989).

Further ambiguity was introduced by the ‘semi-statutory’ status of PSE. Whilst schools have a statutory obligation to deliver the subject, ways in which this is to be realised in practice are left entirely at the schools’ discretion. Whilst some school staff considered this as an important opportunity to adapt teaching to pupil needs, this level of discretion was largely regarded as an encouragement for schools to implement PSE selectively in ways that support examined subjects. These observations align with earlier findings, suggesting that ambiguity may increase the level of discretion implementers assume to have within their decision-making about whether and how they put policy into practice (Pressman and Wildavsky 1974; Weatherly and Lipsky 1977; Porter et al. 1988). Whilst recent arguments advocated the value of autonomy in supporting public sector organisations to perform (Anand et al. 2012), in some contexts it may provide opportunities for competing priorities to elicit selective policy implementation processes. As a result, implementers might create heuristics and unwanted analogies between existing practice and changes that would correspond to policy requirements, resulting in superficial or incomplete implementation of policy (Fullan 2001; Spillane et al. 2002). Indeed, PSE policies written by two of the four case study schools relied heavily on the PSE framework documentation and explicitly drew out similarities to existing practice, in one case justifying how the subject is already being delivered through other programmes.

Uncertainty was also evident in how the PSE framework documentation prompted schools to self-evaluate their delivery, noting that it should be done informally using checklist templates with unspecific and non-measurable criteria. Given the challenges associated with assessing the long-term impact of PSE lessons on pupils, schools largely relied on pupils’ evaluation of the lessons. However, this approach has been criticized as reflecting biased views of pupils having enjoyed some ‘time off’ from normal lesson work rather than providing an indication as to whether the lessons may have made a genuine difference to them. These uncertainties about evaluation seemed to contribute to the low status attributed to PSE by schools, teachers, pupils and parents. They reflect previous findings

suggesting that such non-measurable, informal approaches to assessment may lead to a low value being attributed to such a subject within a performance-focused education context (McCuaig et al. 2012; Bernstein 1990). As assessment within curricular subjects is characterised by strong beliefs in measurable, quantifiable data as an indicator of learning and performance (Broadfoot 2001; Whitty and Menter 1989), an alignment to a performance-focused policy context would have indicated the subject to be of a higher value (Bernstein 1996; Singh 2002; McCuaig et al. 2012). However, the importance of assessment in determining the status of a subject appears not to have been considered in the PSE framework documentation.

The PSE framework contains a large number of links to curricular subjects, such as descriptions about how PSE may be delivered through other subjects, which may align well with teachers' expert language. However, the continuous use of the generic word 'learner' to refer to pupils as the beneficiaries of the policy appeared unusual given LEA and school staff always referred to 'pupils' during the interviews. Another discursive feature of the PSE policy documentation is the repeated use of passive voice to describe the role of key implementers, a characteristic that has been found to impact on the extent to which they perceive themselves as engaged in the implementation process (Fairclough 2003; Mulderrig 2003; Smith 2008). Although the PSE framework has given considerable responsibility to schools and teachers for meeting its ambitious aims, this implicit portrayal of their role as passive may convey a sense of disconnectedness. Such characteristics of the PSE framework documentation may fail to create a shared understanding, and introduce ambiguity into implementation processes (Conger 1991; Pfeffer 1993). The inability of this policy documentation to align the use of language to practice and thereby create a shared understanding between policymakers and implementers was surprising, given that it had been produced by practice experts, as noted by LEA level coordinators.

Pupils' personal and social effectiveness and their ability to live safe and healthy lives, as it is termed in the Welsh Government PSE policy documentation, may not explicitly be considered to be a central part of subject teachers' daily practice language. This mismatch was apparent from analysing interview data representing teachers' views about PSE, suggesting that in some cases PSE is only considered as marginal or indeed nobody's responsibility. This connects to earlier arguments about policy implementation processes being limited by differences between the area of expertise that has informed the policy development and that developed and consolidated by implementers (Hill 2001; Lave and Wenger 1991; Ridge et al. 2002; Smit 2005): Whilst PSE policymakers may be predominantly focused on personal and social development or health outcomes, school staff are mainly concerned with scholastic achievement. Thus promoting pupils' health may seem decontextualized to teachers (Whitehead 2005; Inchley et al. 2007, Jourdan et al. 2010). Therefore, it appeared that some of the characteristics of the PSE framework documentation may undermine its very purpose.

Unlike other school policies that attempt to remain closely aligned to national guidance produced by the Welsh Government (Moore 2011), school PSE policies reproduced a number of the features of the Welsh Government's PSE framework with some considerable variations. These seemed to be associated with individual school contexts, schools' discretion in relation to the implementation of the PSE policy framework, and consequent differences in interpretations of this policy about how it is to shape practice. School policies presented the aims and objectives of PSE in a very similar way to the PSE framework documentation, whilst in three of the four school policies there was also very limited attention to the processes by which the aims are to be realised in practice.

Two of the four school policies seemed specifically written for external inspectors using a defensive discourse, justifying approaches to delivery rather than providing guidance for staff. Targeting local school policy documents in this way seemed to reflect the influence of a performance-

focused policy context and a resulting culture of top-down implementation using inspections and measurable indicators to monitor and drive performance. Attempts at increasing performance of public sector organizations using such governance systems were found to distort practice towards an emphasis on producing the ‘correct numbers’ (Bevan and Hood 2006; Brown et al. 2012; West 2010). In schools, such an approach has been argued to generate a pedagogic practice that is unhelpful for pupils to develop understanding and engage with lesson content (Au 2008). Whilst the production of school policies was the result of professionals’ interpretation of the Welsh Government’s PSE framework, the implementation of PSE in practice was subject to a complex interplay of factors that shaped implementers’ situated sense-making of PSE policy in practice. The next section explores these processes in more detail.

8.3. Interactions at the situated level of sense-making determine how practice reproduces policy

Implementers’ views about practice suggested that situated sense making of policy was shaped by individual-, social-, organisational-, and policy processes, reflecting previous arguments for the importance of adopting a multi-level perspective to understanding policy implementation (Spillane et al. 2002; Walt et al. 2008). Head teachers’ commitment to the value of PSE for pupils appeared to mediate the extent to which organisational arrangements respond to performance-focused policy priorities. In two of the four participating schools such commitment re-emerged in arrangements that facilitated consistency through the allocation of specific teachers to delivering PSE throughout the academic year, who themselves believed in the importance of the subject for pupils’ personal, social and academic development. In the two schools where head teachers considered PSE as marginal to the main school curriculum, arrangements appeared to be less supportive of PSE. These observations link to earlier suggestions of head teachers’ opposition to interventions or other changes being a significant barrier to their effective implementation (Abbott et al. 2011). They were unsupportive due to predominantly focussing on curricular pressures, and

regarded health education as competing for valuable time and resources within the school rather than as an important way of supporting pupils' development. Head teachers' views and beliefs also seemed to resonate in staff attitudes and views about practice and lesson processes (Opdenakker and Van Damme 2007; Kyriakides et al. 2010). This finding reflects earlier arguments for the importance of leadership in facilitating successful school policy implementation due to its role in shaping organizational culture (Spillane et al. 2002; Barrett 2004; Kasili and Poskiparta 2004; Walt 2008; Watkins et al. 2008; IUHPE 2009).

Such leadership influence can take place through both informal processes as well as formal, hierarchical structures (Kogan 1975; Ball 1990; Champagne et al. 1991; Bowe et al. 1992; Spillane 2000; Spillane et al. 2002; Rogers 2003; Greenhalgh et al. 2004; Coburn 2006; Hodgson and Spours 2006). In line with these suggestions, the findings from this study indicated that the influence of head teachers' decisions on arrangements and staff views may have acted mainly through formal, hierarchical organisational structures. These would, for example, be decisions about timetabling arrangements, staff or funding allocation. However, it was apparent that organisational culture appears to have received insufficient attention within PSE policy development as well as health education interventions. Gomez (2012) have defined organizational culture in schools as the beliefs and attitudes about academic and organizational expectations as well as teaching approaches. The findings from this study have indicated that particularly in one of the four participating schools, staff beliefs and attitudes were supportive of the aims of PSE, and these were in line with teaching approaches aimed at facilitating pupil interaction and their development of important skills. These links appear consistent with previous arguments, suggesting that head teachers play an important role in shaping an organisational culture that might support or hinder the implementation of change in schools (Kasili and Poskiparta 2004; Watkins et al. 2008). Ways in which school culture may re-emerge in school arrangements and social processes are considered in the next section.

School arrangements that are focused on optimising the delivery of examined subjects seemed to limit opportunities for social sense-making. Tight timetabling and the predominant allocation of specialist staff to examined subjects seemed to leave only limited opportunities for teachers to think about PSE, to collaborate with colleagues about delivering different elements of PSE through examined subjects, or to think outside their 'subject boxes'. These findings reflect earlier arguments about schools creating 'egg carton' structures (Spillane et al. 2002), operating 'silos' within schools that represent different elements of the system with varying goals and priorities (Hayes et al. 2006). Such structures would not permit teachers to engage in social sense-making or an exchange of tacit beliefs and alternative viewpoints about how the PSE policy is to be implemented (Brown and Campione 1996; Sachs 1995). Indeed, they would prevent the creation of enactment zones, the social and professional networks that facilitate social sense-making and an exchange of knowledge and skills. Wider enactment zones that incorporate professional input beyond the classroom or school have been found to be associated with more effective policy implementation and more positive outcomes (Lortie 1975; Bryk et al. 1993; Louis and Kruse 1995; Spillane and Zeuli 1999; Pedder and MacBeath 2008).

In addition to influences on social determinants of implementation, organizational arrangements also seemed to impact on individual factors that shape policy sense making, such as teachers' subject specialization, their professional self-knowledge or self-concept. Organisational arrangements aligned to optimising the delivery of examined subjects appeared to reinforce teachers' socialisation into subject specialisation. For pragmatic reasons, largely to ensure examined subject delivery is of high quality, schools allocated subject teachers to their specialist subject for the majority of their teaching time, with only a very limited number of hours per fortnight dedicated to other subjects or activities, such as PSE. Staff who have worked within such arrangements for some time are likely to have developed specific expert lenses or schemata, collective sets of related ideas

or understandings that shape interpretations of new information (Schank and Abelson 1977; Cantor et al. 1982; Mandler 1984; Trope 1986).

As a result of such subject specialisation, teachers may develop professional 'comfort zones' that determine the types of pedagogic approaches that they consider appropriate for their lessons. Some appeared to consider the delivery of PSE themes as well as relevant pedagogic approaches as being outside their 'comfort zones', something teaching staff are not used to teach or feel uncomfortable about, whilst others regarded the facilitation of child-centred, discussion based lessons as too demanding and are reluctant to deliver the subject altogether. Some schools allocate teachers to PSE regardless of whether they wish to deliver the subject, which may lead to reluctance and disinterest as well as poor quality lessons. Other schools predominantly allocate less experienced, newly qualified staff to deliver PSE whilst experienced teachers deliver lessons for examined subjects. This observation reflects earlier findings, suggesting that if teaching staff are asked to deliver subjects outside their subject area or use pedagogic approaches they are not familiar with, they become reluctant (Inchley et al. 2007; McLaughlin and Talbert 1993, Whitty 2002), or feel that certain tasks are imposed upon them in a coercive way, which can have a negative influence on the quality of provision (Inchley et al. 2007).

Allocating teachers to delivering PSE lessons in spite of their reluctance could undermine their professional self-concept, which, in turn, can affect their motivation to deliver high quality PSE lessons (Leithwood et al. 2002). This, for example, was evident in teachers' views suggesting PSE tends to be nobody's responsibility, and as a result, very limited effort has been invested into preparing lessons. It has previously been found that changes which reduce professionals' autonomy and sense of control may be seen as a lack of trust in professionals' judgement, which in turn can limit their sense of self-efficacy and erode their professional self-concept (Firestone and Rosenblum 1988; Lee et al. 1991; Leithwood 2002; Mulderrig, 2003). Thus teachers' tendency to maintain and defend their position as subject specialist may therefore be both understandable and natural (Whitty 2002).

Some teachers seemed to ‘protect’ their subject specialisation and deal with a reluctance to delivering PSE by closely controlling the topics and types of classroom exchanges to avoid embarrassing questions or open discussion. Worksheets provide such a ‘safe’ structure. Whilst lesson observations suggested that a large proportion of PSE lesson exchanges were focused on working through such materials, coordinators at LEA level criticized the predominant use of these as stifling important lesson processes. Such strong framing, a tight prescription of what is and is not to be talked about during lessons, was noted to encourage classroom processes characterised by performance-focused exchanges: knowledge transmission rather than processes that foster pupil understanding and engagement (Bernstein 1996; 1999). However, the use of worksheets appeared to be reinforced by Estyn school inspections requiring written evidence of lesson activities. Although the purpose of inspections is to ensure high quality teaching, their impact on practice appeared to reiterate performance-focused policy context priorities at practice level.

Such pedagogic exchanges during lessons are unhelpful for pupils’ development of skills and competencies related to personal and social development (Au 2008, Bernstein 1999; Whitty et al. 1993), thereby undermining the aims PSE seeks to achieve. These discrepancies reflect previous findings describing how partial implementation of interventions or policies created a barrier to practice being developed as intended. For instance, interventions which sought to introduce inquiry learning into school environments were interpreted as extended library searches, whilst no changes to pedagogic practice were introduced (Songer et al. 2002). Similarly, Haug (1999) found that teachers’ interpretation of a reform aimed at encouraging the introduction of problem solving activities into lessons remained at a superficial level and failed to facilitate student interaction.

Teachers’ views about practice and the types of pupil needs PSE should address seemed to be influenced by contextual characteristics of schools, such as the level of deprivation of the schools’ catchment area. In one of the two schools with a high rate of free school meal entitlement, the head

teacher as well as the PSE coordinator remarked that due to challenging home backgrounds, PSE is there to provide a source of stability and to compensate for problems pupils may experience at home. In the other school with a similarly high FSM rate, PSE was regarded as a way to try and tackle challenges within the community such as bullying and unemployment. Where interview and observation data suggested a marginalisation of the subject in another school, staff reflected on the purpose of PSE as providing extra time to complement the main curriculum. Although these findings suggested some considerable differences between the participating schools, they illustrated that interpretations of the purpose of PSE policy appeared strongly influenced by staff perceptions of pupil needs that are to be addressed. This is in line with earlier arguments suggesting the interpretations of policy and how it is to be enacted in practice is strongly influenced by teachers' views (Cohen 1990; Wilson 1990).

These perceptions about practice seemed to vary among different groups of professionals. Those staff who were more frequently involved in day-to-day classroom practice focused on the importance of entertaining pupils, creating interesting and memorable sessions to maintain discipline and attendance. This was particularly true for two of the four participating schools. Head teachers' and LEA coordinators' views about appropriate approaches to deliver PSE lessons seemed more concerned with lesson processes that facilitate pupil involvement and engagement to help develop the necessary skills and knowledge to make adequate decisions. The data collection for this study did not attempt to assess teachers' pedagogic skills. It is therefore uncertain whether these differences in views about the types of pedagogic approaches to delivering PSE may be influenced by variations in pedagogic skills as previously suggested (Cohen et al. 1998; Ennett et al. 2011). It may be that these differences illustrate a reciprocal link between organisational structures, such as the awareness of time pressure, and intrapersonal influences on sense-making, such as teachers' practice – related self-perceptions (Friedman and Farber 1992). As discussed earlier, such self-perceptions are shaped by teachers' socialisation into specialist

subjects and corresponding curricular arrangements, influencing knowledge structures, understandings and attitudes to teaching, which in turn determine views about practice (Schank and Abelson 1977; Majone and Wildavsky 1978; Rumelhart 1980; Brewer and Nakamura 1984; Carey 1985; Markus and Zajonc 1985; vonGlaserfeld 1989; Cohen and Weiss 1993; Greeno et al. 1996). How these views about practice re-emerged in classroom processes and pupils' perceptions, and how they relate to previous research and theory will be considered in the following.

8.4.Re-emergence of policy in practice and pupils' experiences

The focus on graded exam performance, which has been shown to shape implementers' perceptions and practice, was evident in how pupils experienced PSE lessons. There was agreement among pupils that on the whole, PSE lesson processes did not encourage them to get involved and engaged. Lesson activities focused on copying text from books or being talked at by the teacher were seen as unable to help them understand or remember what they are being taught. These experiences connect to findings from the analysis of lesson observation data, suggesting that the majority of classroom talk was indeed characterised by the provision of facts or the use of worksheets and other resources that promoted performance-focused exchanges. These insights into pupils' perceptions of PSE practice in Wales reiterate findings from evaluations of PSHE in England (Formby and Wolstenholme 2012) and curricular health education in Canada (Begoray et al. 2009).

The link between such performance focused pedagogic discourse and its limitations in facilitating pupil understanding and engagement, as described by pupils, has previously been noted. Lesson processes dominated by a transmission of facts are not necessarily in line with pupils' individual learning pace, they can demotivate and elicit anxiety (Assor et al. 2005) and limit opportunities for pupils to develop health-related competencies (Bernstein 1990, 1999; Morais 2002; Au 2008; Begoray et al. 2009). Pupils recommended that more opportunities for interaction should be created to help them learn more in PSE lessons, reflecting Formby's (2011) findings.

Some pupils seemed unable to relate the lesson content to their lived experience. Instead of recognising that lessons aimed to raise awareness about important issues such as suffering in developing countries or the implications of bullying, they complained about being made anxious and upset. In line with the types of lesson characteristics that were observed in this school, these experiences appeared to demonstrate the impact of lesson processes dominated by fact transmission. It has previously been found that such lessons might not provide adequate opportunities for pupils to engage with the lesson content and understand and apply knowledge across contexts (Dewey 1938; Bernstein 1990; Barrows 2000; Hmelo-Silver 2004).

Particularly in two schools, pupils seemed to view PSE as disconnected and something separate from the National Curriculum. For example, they regarded PSE as offering time to finish off work from other lessons, or to have some fun time at school where they do not have to bring books or do any work. These experiences seemed to reflect ways in which pupils perceived the subject to be marginalised and given a low status within the school. These included a lack of integration into teaching time and space associated with a strong classification between subjects, and the staff and resources allocated as well as ambiguities about approaches to evaluation, which stand in contrast to assessment practice in Maths or English (Bernstein 1971, 1990). This is in line with earlier findings suggesting that subject characteristics, which differ substantially from those of curricular, examined subjects, can limit the value attributed to subjects such as PSE (Rowe 1993, Whitty et al. 1994; Bernstein 1996; McCuaig et al. 2012). Such differences appeared to reinforce the marginalisation and separation of PSE from 'normal' school teaching.

The influence of practice on intrapersonal determinants of pupils' health behaviours became evident from pupils' reflections about PSE and about health behaviours. Pupils were generally in agreement about the importance of PSE in raising awareness about their own development, and in helping them gain the knowledge to make appropriate health and life choices. Such positive attitudes, pupils' overall positive or negative evaluation of a target

behaviour, are an important intrapersonal level influence on behavioural intentions (Ajzen 1985). Positive attitudes towards health behaviours also re-emerged in focus group discussions about the long- and short term implications of health behaviours. Pupils' reflections also suggested that they were able to understand and apply health knowledge, indicators of learning processes that facilitate a transformation of knowledge (Bernstein 1999; Barrows 2000). Pupils' evaluations of their schools' provision of healthy food choices and opportunities for physical activity suggested that they transferred their knowledge about healthy behaviours to different contexts (Barrows 2000; Dewey 1938). Such processes are encouraged through competency-focused lesson exchanges where pupils have to actively engage with a task, resolve problems or answer questions independently or collaboratively (Hmelo-Silver 2004). These processes relate to those described by Markham and Aveyard (2003) as key to schools' promotion of pupil functioning, by enhancing pupil input into their own learning and by increasing their choice over classroom activities. Such learning processes have also been described as having the potential to support personal and social development (Jerzembek and Murphy 2012). However, they have not been attended to in recent evaluations of interventions, as mentioned earlier (Formby and Wolstenholme 2012).

In some cases, participants negotiated agreement about their individual agency in health behaviours. For example, pupils in one focus group criticized the limited availability of fruit and vegetable available at lunchtime, upon which one member of this group noted that it is not necessarily the school's responsibility to provide healthy food, but that they can take control of their eating habits. A discussion ensued and participants exchanged concerns and suggestions about practical implications of bringing fruit into school, showing an awareness of some contradictions between what they are taught and how the school itself facilitates health behaviours. Others talked about how timetabling arrangements, which require them to walk long distances in short breaks between lessons, can enhance their physical activity levels throughout the school day. They also explained how they monitor and control their fruit consumption, by

substituting sweet or savoury snacks with fruit. These self-reported cognitions and behaviours could be mapped onto some elements of self-regulation as proposed by Bandura (2005), and as successfully applied to school based health promotion interventions (Robinson 1999; Dishman et al. 2004; Kam et al. 2004; Barnett et al. 2008; Araujo-Soares et al. 2009; Peralta et al. 2009). These findings also highlighted pupils' potential for transferring or applying knowledge across contexts as well as for self-monitoring and adjusting their own behaviours. Whilst these observations would require further data for clarification and consolidation, it might suggest the existence of an important opportunity for further work specifically focussing on self-regulation.

Whilst some of the lesson exchanges observed may have had the potential to promote self-regulatory behaviours, they could not be linked directly to focus group data indicative of pupils' understanding and application of health knowledge. This could not be accommodated within the scope of this study. The suggestions put forward in Chapter 1, highlighting that competency-focused pedagogic approaches may have the potential to enhance school-based health education effectiveness through self-regulatory behaviours (Hmelo-Silver 2004; Peralta et al. 2009), could not be supported directly by the findings from this study. However, some elements linked to promoting self-regulatory behaviours were identified in practice, as well as implementation processes associated with these. The theoretical approach taken by this study sought to explore and understand underlying processes that shape PSE practice, rather than confirm existing approaches or reiterate established linkages (Pratt 1995). These objectives have been met and pathways from policy to practice have been identified.

Pupils' understanding and application of health knowledge seemed connected to head teachers' views about PSE practice and a corresponding school culture supportive of PSE. This was apparent for data from two of the four schools, as summarised in Table 6. Where head teachers saw the purpose of PSE as supporting pupils' development and learning,

organisational arrangements in these schools facilitated a continuous delivery across the academic year by the same teacher who knew the pupils. Staff in these two schools emphasized the importance of PSE in enhancing pupils' attainment and personal development. Policies produced by both schools were written for school staff to guide practice. It seemed that head teachers in these two schools may have been able to successfully 'counter' a prevailing results culture, as has been noted by one of the LEA coordinators to be important in facilitating effective PSE. These links are in line with earlier arguments about the importance of head teacher decision-making in relation to organisational arrangements and their influence on school culture and staff views (Erb 2006; Yecke 2006; Whitley et al. 2007; Viadero 2008; Weiss 2008; Abbott et al. 2011).

In contrast, findings from the other two schools seemed to suggest curricular priorities shaping practice and pupil understanding, influenced by an exam-focused culture evident in staff views and organisational arrangements. Pupils at these two schools seemed to understand and apply health or PSE related knowledge to only a very limited extent: Whilst focus group participants at one school were focused on the fact that lesson processes are boring, pupils at the other school used the focus group as an opportunity to complain about the unhealthy food that was being provided by the school. Policies in both these schools appeared to justify compliance with external requirements rather than providing guidance for staff to support the delivery of PSE within the school. Therefore, a school culture supportive of PSE might be linked to pupil understanding and application of health knowledge, a finding, which connects to previously established links between school culture and achievement (Gomez 2012).

The context of PSE lessons, in particular timetabling arrangements, represented one way in which National Curriculum requirements shaped practice. The extent to which each of the four case study schools allocated curricular time to the delivery of PSE ranged between fortnightly lessons and PSE days delivered three times per year. These arrangements, particularly in the latter case, suggested PSE to be marginalised and

separated from the main curriculum, emphasizing the importance of examined subjects over PSE. These observations reflect earlier findings about similar subjects, such as PSHE or health education being shoehorned into timeslots that were left after all examined subjects have been timetabled. These communicate to pupils and teachers the low status of the subject and its separation from 'proper school teaching' (Formby and Wolstenholme 2012; McCuaig et al. 2012; Whitty 2002). Similarities between findings from this study concerned with the implementation of PSE in Welsh schools, and evaluations of the delivery of PSHE in English schools or health education in Australian schools, may relate to commonalities in the performance focus evident in Western education systems (Bernstein 1996; Freire 1985; West 2010).

The performance-focused policy context also appeared to re-emerge in the physical characteristics of PSE teaching spaces. It has been noted that physical space characteristics can clearly reflect a subject's identity and signal its insulation from other subjects through artefacts and certain attributes of lessons, which communicate to pupils the sort of understanding and discourses or behaviours that are expected (Bernstein 1990). This separation was strongly apparent in three of the four participating schools: PSE teaching spaces were all appropriated for other purposes through artefacts or posters supporting History, Biology or English lessons. Staff in only one school seemed to have made an effort to signal the explicit integration of PSE skills and themes into the curriculum by putting up posters with PSE logos reminding pupils of the importance of relevant thinking and collaboration skills. These observations further reiterated a separation of PSE from the main curriculum, and illustrate the impact of the policy context described previously (Rowe 1993; Whitty et al. 1994a, 1994b).

The performance-focused policy context did not, however, re-emerge as strongly in other physical characteristics of classrooms. Classroom seating arrangements in three of the four schools intended to stimulate discussion and group interaction: tables and chairs were arranged for pupils to face

each other as well as the teacher. Although these arrangements may have represented an attempt by school staff to initiate interactive lesson processes, the exchanges that took place within these spaces seemed somewhat incongruent as lessons were dominated by fact transmission. In one school, however, the rows of tables facing the teacher corresponded more to individual work, although the teacher facilitated interactive lesson processes by getting pupils to move chairs and collaborate in groups. It has been recognised that seating arrangements in classrooms can stifle or promote interaction among pupils, as well as active engagement with lesson content (Marx et al. 2000). It has been suggested that the purpose of lessons should dictate the appropriation of classroom layouts and corresponding discourse within it and that schools prefer a traditional row-and-column classroom layout (Wannarka and Ruhl 2008). These arguments are in contrast to the findings from this study. This incongruence suggests that school staff may not be aware of the impact of classroom layout on pupil behaviours or indeed the impact of classroom processes. Indeed, the role of classroom seating arrangements and pedagogic discourse does not seem to have been explicitly attended to in school health education or health promotion interventions (Mukoma and Flisher 2004; Formby and Wolstenholme 2012).

The impact of the National Curriculum was also evident in lesson processes. Teacher-pupil exchanges in the twelve lessons that were observed were mainly characterised by performance-focused pedagogic discourse. This observation re-produces earlier findings about performance-oriented policy contexts shaping classroom processes, which were characterised by a transmission of facts and which were focused on teaching pupils how to respond to factual questions rather than how to apply knowledge (Rowe 1993; Whitty et al. 1994a; Bernstein 1999; Whitty 2002; Mulderrig 2003; Harlen 2007; Begoray et al. 2009). Such approaches have been found to prevent pupils from developing understanding (Brooks and Tough 2006; Harlen 2007). However, despite the importance of lesson processes, a more recent evaluation of a similar subject, PSHE in England, did not examine the types of teacher-pupil exchanges that took place during lessons (Formby

and Wolstenholme 2012). The fact that the findings from this study replicate earlier observations suggests that little progress seems to have been made over the past two decades with regards to considering the impact of performance-focused pedagogy on pupils (Bernstein 1990). It appears that the role of pedagogy in lessons continues to be underestimated. This is in contrast to Markham and Aveyard's (2003) arguments, highlighting that pedagogic practice represents one important way by which schools can influence pupils' health, alongside school organisational and curricular arrangements. The findings also suggest that insufficient attention has been given to the ways in which a transformation of health knowledge into health behaviours could be promoted through pedagogic processes (McCuaig et al. 2012). Potential approaches to addressing this gap were discussed in Chapter 1, examining intrapersonal determinants of health behaviours, how these have been shaped by previous interventions and how pedagogic approaches might specifically facilitate the introduction of such processes in classrooms. By attending to such elements within classroom exchanges, the findings from this study were able to highlight opportunities where lesson processes might be more appropriated to supporting pupils' personal and social development or indeed the development of health behaviours from health knowledge.

These opportunities emerged from a small number of competency-focused classroom exchanges that were observed, which explicitly promoted pupils' active involvement and engagement within the lesson to problem-solve or complete a task collaboratively. Others were about goal setting and self-monitoring, modelling and reinforcement. These types of competency-focused pedagogic exchanges reflected elements of classroom exchanges used within educational interventions aimed at promoting school-aged learners' personal, social and academic development using PBL (Hmelo-Silver 2004; Cererzo 2004), as well as specific self-regulation interventions that sought to bring about sustainable health behaviour change (Bandura 2005; Robinson et al. 1999; Peralta et al. 2009).

Whilst the level of deprivation in schools' catchment areas seemed to influence school staff perceptions about the purpose of PSE, it did not appear to be linked to pupils' understanding and application of health or PSE related knowledge. This seems contrary to earlier arguments that suggest health behaviours of young people are socially patterned, with those from families with lower incomes less likely to engage in health behaviours (Brooks et al. 2006; VonRueden et al. 2006). This finding may have been due to the small study sample or the limitations associated with the use of FSM as an indicator of socio-economic deprivation (Hobbs and Vignoles 2007). The patterns across the different levels of data, as shown in Table 6, indicate that the Welsh Government's PSE framework seemed to be more thoroughly integrated in two schools which showed very different levels of achievement and FSM rates. Similarities appeared in the way in which school staff approached the subject, wrote the PSE school policy and ensured organisational arrangements facilitate continuity in PSE provision. In addition to the literature having established the social patterning of health behaviours, there have also been links between socio-economic disadvantage and levels of academic performance (WG 2009). Bernstein (1990) and Au (2008) have argued for the potential of competency-focused pedagogic discourse in reducing inequalities in achievement. In support of these arguments, the literature presented in Chapter 1 has discussed the detrimental effects of performance-focused pedagogic discourse on pupils' wellbeing and academic functioning, alongside the benefits of competency-focused elements in lessons. The findings from this study have indicated that pupils prefer competency-focused pedagogic discourse over fact-focused or book-based PSE lessons. The extent to which competency-focused pedagogic discourse might affect pupils' personal and academic functioning or how it might address inequalities in achievement would require further clarification. Having considered the similarities and differences between findings from this study and earlier research, the following sections draw out their implications for theory, policy, practice and research.

8.5. Implications for theory

This thesis has drawn on a socio-ecological perspective to inform the theoretical and methodological framework for this study. Its use as a framework to explain determinants of individuals' health behaviours enabled the study processes to take account of all socio-ecological levels of influence. This theoretical framework has previously been used to explain health behaviours and to inform health promotion interventions (Bronfenbrenner 1979; McLeroy et al. 1988) as well as policies (WHO 1986), highlighting the importance of considering individual, social, organisational and wider contextual determinants and the interaction among them. It has been suggested that adopting such a perspective can provide a theoretical and methodological framework (Moore 2011) as it also explains the problem this thesis is focused on: young people's health behaviours. A review of evaluations of school based health education interventions or policies has indicated that processes at an interpersonal (interactions between teachers and pupils during lessons) and intrapersonal (pupils' behavioural intentions, self-regulation) level are particularly pertinent to pupils' health behaviour change. To understand how these determinants are shaped by implementation processes and how they impact on practice, the literature was searched and reviewed according to a socio-ecological perspective. This also informed the research aims and objectives, as well as the research methodology, enabling findings to be considered in the context of the literature originally reviewed. Thus, the recommendations for policy, practice and research emerged from a theoretical perspective that has been aligned to explaining the problem: young peoples' health behaviours.

This socio-ecological perspective formed the basis for the theoretical framework underlying this study (Figure 1). In order to explain processes at each level of influence in more detail, it distinguished between the policy context, agency and practice. The policy context encompassed relevant secondary education policies as well as policy document characteristics which might be influential in shaping the implementation of PSE in schools. Agency referred to an interaction between organisational determinants,

interpersonal and individual sense-making of policy and resulting situated representations. Practice was represented by both the content of PSE lessons as well as the pedagogic practice used to deliver it.

The findings from this study have reiterated the importance of policy context influences as well as policy characteristics in shaping school policy implementation processes. The predominance of a secondary education policy context focused on exam performance seemed to influence all levels of policy sense making (Spillane 2002). Inconsistency among the different policies and ambiguity within the PSE framework appeared to lead to uncertainty among implementers (Fullan 2001). A lack of clear objectives and guidance seemed to contribute to this uncertainty (Matland 1995). It has previously been argued that assessment processes are important in determining the role of a subject in secondary education (McCuaig et al. 2012) and the findings from this study have reiterated this argument. It was evident that the absence of formal assessment processes contributed to PSE being regarded as a subject of low importance. Therefore, both policy context and PSE policy characteristics were important in shaping implementation of PSE.

At the agency level it was evident that power relationships, in particular head teachers' decision-making, were influential in how staff regarded PSE and what they considered appropriate ways for delivering the subject. The findings from this study have highlighted the importance of leadership as well as the distribution of responsibilities and specialisation within schools (Barrett 2004; Whitty 2002). Where head teachers believed PSE to be important for pupils' personal and academic development, school arrangements for the provision of PSE seemed more continuous and delivery more consistent and of higher quality. Spillane and Zeuli (1999) have highlighted the value of social sense-making for effective implementation processes. They have noted that opportunities for teachers to collaborate, to create mutual understanding and to develop professional networks contribute to development of practice that is more in line with policy intentions. Although some of the participating LEA coordinators

talked about the importance of collaboration and interdisciplinary networks for PSE to be effective, there did not appear to be any significant opportunities for teachers to develop in-depth PSE-related enactment zones in any of the four participating schools. Particularly in one of the schools it was evident that teachers did not consider the subject to be their responsibility. They were given worksheets to hand out and talk about within the sessions they were allocated to deliver by the school PSE coordinator. There were no further opportunities for them to engage with the subject.

Individual sense-making also appeared to play an important role in how practice was shaped in response to policy. The findings have shown that individual influences on the implementation of PSE were shaped by organisational arrangements, the distribution of responsibilities and specialisation as well as social sense-making. It has previously been noted that interpretations of policy are influenced by teachers' own view of teaching (Cohen 1990) and pedagogic skills (Spillane 1998). From the data it was evident that school staff at different levels (head teachers, school-level PSE coordinators, and classroom teachers) held different views about the purpose of PSE and how it should be delivered. Those perceptions of practice seemed influenced by teachers' experience, as well as their proximity to everyday classroom practice. Whilst all four head teachers explained the importance of facilitating discussion and interaction within lessons in order to help pupils develop important transferable skills, some of the classroom teachers were focused on creating lessons that are entertaining and ensure pupils attend and are reasonably behaved. Interpretations of how PSE is to be taught seemed also influenced by teachers' main specialist subject. A Science and Technology regarded PSE as an opportunity to offer pupils 'learning by doing' experiences, whilst an English teacher emphasized the importance of discussion and interaction. The findings from this study have highlighted some important influences at the agency level that shape practice in response to policy. They have also demonstrated that the theoretical framework underlying this study was adequate in specifying the roles of structure (policy and policy context) and

agency (organisational setting characteristics, social and individual influences on sense-making of policy and the interaction among these influences) in shaping practice.

Such a multi-level approach attempted to understand an important gap in public health and to identify where practice might change. Preventing the development of chronic disease in later life might happen through school-based health education that can achieve sustainable, self-regulated health behaviour changes. The link between pedagogy and intrapersonal influences on health behaviours has not previously been considered, and represents an important contribution of this study. Whilst findings reiterated the negative impact of performance focused pedagogy, the socio-ecological perspective facilitated the identification of opportunities for enhancing school-based health education, and emphasized the potential of pupils' understanding and application of health knowledge and its links to classroom processes and organisational culture. The next section considers implications for policy, practice and research.

8.6. Implications for policy and practice

This section discusses the implications from this research, firstly for policymakers, secondly for school staff and thirdly for researchers. Policy decisions about PSE or school-based health education should take account of the different socio-ecological levels of influence that shape implementation and outcomes, as reflected in earlier policies (McLeroy et al. 1988; WHO 1986). This study has shown that the policy context, in particular a focus on performance in examined subjects, appeared to have a profound impact on implementation processes taking place at all levels: they shape schools' organisational arrangements, staff perceptions, classroom practice as well as pupil views. This finding reiterates earlier arguments about the challenges associated with schools' priorities that compete with a focus on health education or school activities aimed at supporting pupils' personal and social development (Bernstein 1996; Whitty 2002; Begoray et al. 2009; West 2010; Formby and Wolstenholme 2012; McCuaig et al. 2012).

Recommendations on the basis of these findings resonate with earlier arguments for policymakers and schools to carefully consider the impact of these curricular priorities on health education (McCuaig et al. 2012). The findings from this study have shown that National Curriculum requirements and their impact on schools, teachers and practice is unlikely to change easily, and that PSE or health education is likely to remain marginalised and separated from the curriculum. As noted earlier, this may be due to PSE possessing characteristics that set it apart from examined subjects (Rowe 1993; Whitty et al. 1994; Bernstein 1990; McCuaig et al. 2012). Attempts at creating similarities between PSE and examined subjects through imposing statutory obligations on schools and operationalizing them by means of assessment or inspection regimes appear to increase the pressure on schools and teachers. Although such governance approaches might shape practice that seems focused on satisfying centrally set requirements, they do not appear to support the purpose of the subject. This is in line with earlier findings, suggesting that top-down, target driven governance regimes can have a negative effect on public service organisations and their practices (Bevan and Hood 2006; Brown 2012). Instead, viewing policy implementation from the perspective of those that enact it in practice may be more likely to generate outcomes that are in line with policy intentions (Lipsky 1980).

In the light of these arguments it is suggested enhancing the provision of guidance and support to school staff who coordinate and deliver PSE. School staff could be encouraged to use competency-focused pedagogic approaches, in particular for delivering health related PSE themes. This might be achieved through initial teacher training or continuing professional development training of qualified teachers.

The findings from this study were indicative of organisational structures in the participating schools that are best described as ‘subject boxes’ or ‘knowledge silos’ (Hayes et al. 2006). LEA and school staff repeatedly indicated that due to curricular pressures there is very limited time to

collaborate with others about the provision of PSE. It has previously been found that such structures do not offer the time for teachers to engage in social sense-making, the exchange of tacit knowledge about practice (Brown and Campione 1996). The value of such social sense-making has been highlighted, and it has been noted that by developing a social context for practice teachers create enactment zones. Wider enactment zones, which incorporate professional input beyond the classroom or school, are associated with more effective implementation of policy. Individualistic enactment zones, on the other hand, reach barely beyond the classroom and have been associated with surface level changes in response to policy (Coburn and Russell 2008; Spillane and Zeuli 1999). Continuing professional development aimed at encouraging the use of certain pedagogic approaches might also be an opportunity for promoting collaboration among teachers and the development of professional networks that also include outside agencies. For example, classroom teachers delivering PSE sessions on healthy eating might collaborate with other members of school staff delivering Biology and PE to help pupils create a linkage to topics concerned with nutrition, metabolism or physical activity and use of energy. In addition, they might collaborate with school nurses delivering specific sessions on health or with other agencies such as the Children's Food Trust to help pupils gain a better understanding of the different types of food offered at school and at home.

It might also be worth investigating whether the purpose of PSE is best served by retaining it as a separate, dedicated 'school subject'. PSE themes might be more effectively delivered as part of another subject. The PSE framework already contains a number of links and suggestions for cross-curricular integration, which seems to be realised to only a limited extent due to the various aforementioned multi-level barriers. Part of promoting such an integration of PSE into curricular teaching would be the removal of ambiguities associated with the semi-statutory status of PSE. If policymakers created more opportunities within curricular subjects to deliver PSE-related themes or indeed health education more generally, a number of challenges associated with its marginalisation might be

overcome. Teachers and pupils might regard the subject as no longer separate and of lower status, but see it as an integral part of day to day teaching and wider school arrangements. In addition, it may encourage teachers to integrate relevant pedagogic approaches for PSE related components into curricular subjects, and overcome ambiguities about assessment. Assessment regimes could be linked to those of curricular subjects but focused on pupils' understanding and application of knowledge. This would move towards an alignment between assessment practice, classroom processes and the curriculum, an important facilitator of the development of effective practice according to earlier arguments (McCuaig et al. 2012; Bernstein 1971, 1990).

Closely linked to evaluation practices are the objectives stated in policy documents. Based on findings from this study it is suggested that the objective statements within the PSE framework are re-written to better communicate underlying ideas to implementers. In line with earlier recommendations, such objectives should be clear, measurable, time-bound, realistic, and specify the expected level of performance and explicate outcomes (Matland 1995; Locke and Latham 2002; Spillane et al. 2002; Bovend'Eerdt et al. 2009). Spillane et al. (2002) suggested that illustrations of how policy is to be enacted in the classroom, using, for example case studies or vignettes, is likely to contribute to greater clarity.

A greater extent of integration of PSE or health education into curricular themes would also remove the incompatibility between teachers' self-perceptions as subject experts and associated reluctance to delivering PSE lessons in ways that are incongruent with their usual teaching practice. Appropriate professional development could help make teachers explicitly aware of the impact of the different types of pedagogic practice on pupils, and appropriately tailor the use of these to lesson tasks and components as part of their main specialist subjects. For example, competency-focused approaches might enhance lesson elements that seek to develop pupils' personal and social development or promote health behaviours, whilst fact transmission prepares pupils for recall type knowledge tests. This

conclusion reflects earlier findings suggesting that teachers may require further training and development to appropriately deliver PSE (Estyn 2007) or health education (Ennett et al. 2011).

Previous studies have shown that linguistic features of policy documents can be important in creating a shared understanding between policymakers and implementers about how practice is to respond to policy. A number of characteristics have been identified in the PSE framework documentation that may undermine the development of such shared understanding, and it is therefore suggested to examine how language in the PSE framework corresponds to ways in which teachers talk about their day to day practice, in line with earlier recommendations (Conger 1993; Smit 2005). Part of such an alignment, for example, would be the way in which the role of actors in the implementation process is described. The study findings suggest that those with key responsibilities should be represented in active tense as this is likely to increase the extent to which implementers see themselves as involved in the implementation process, reflecting suggestions made earlier (Mulderigg 2003; Smith 2008). For example, The PSE framework guidance suggests

*'Learners should be given opportunities to promote their health and emotional well-being and moral and spiritual development (p.10);
'given opportunities to: identify links between cause and effect, distinguish between 'facts', beliefs and opinions, form personal opinions and make informed, decisions, use appropriate techniques for personal, reflection.(...)'(p.18).*

In order to provide clearer guidance for practice, this document might benefit from the addition concrete examples how these opportunities for learners might be created. It could show what and how teachers may discuss with pupils using active tense: 'Teachers should explain to pupils what a healthy diet is, and how they can engage in physical activity. Teachers should discuss with pupils how they can make healthy choices.'

School policy development should focus on guiding staff rather than providing evidence for compliance with external demands or replicating ambiguities inherent in national guidelines. This is in line with earlier suggestions for creating policy documents that provide clarity about intended practice (Spillane et al. 2002). The development of such clear school policies is likely to be influenced by the extent to which head teachers are committed to the value of PSE or health education. It is also suggested that they should reflect on how they view the role of health education or PSE in learners' development, and how these views might reflect in curricular arrangements and organisational support for the subject. Findings from this study have illustrated the strong impact leadership may have on shaping school culture, which in turn, represents an important determinant of practice (Spillane et al. 2002; Watkins et al. 2008; Abbott et al. 2011; Gomez et al.2012).

In order to support the development of skills and consequent practice, the findings from this study suggest that curricular arrangements in schools should create more space for teachers to collaborate and interact. This aligns with earlier recommendations for schools to move away from 'egg carton structures', and to try and prevent the development and consolidation of 'knowledge silos' in schools (e.g. Spillane et al. 2002; Spillane and Zeuli 1999). It is also suggested that opportunities for collaboration are facilitated through school leadership, which aligns with earlier arguments, noting that the mere provision of space and opportunities is insufficient if teachers are to develop professional networks effectively. Leadership decisions about teachers' job role design, selection criteria during recruitment and the provision of opportunities for continuing professional development have been noted to support the creation of such professional networks (Coburn and Russell 2008).

8.7.Limitations and implications for further research

The exploratory case study approach taken by this study incorporated policy document analysis, semi-structured interviews, focus groups and lesson

observations to understand PSE implementation processes and practice in Welsh secondary schools. The findings provided a detailed understanding of the different processes that shape the implementation of PSE at policy, organisational, social and intrapersonal levels of influence. Future studies might consider employing a similar multi-method approach whilst taking into account some recommendations from this study.

Policy document analysis based on CDA aimed to understand policy content and processes (Barrett 2004; Mulderrig 2003) and to identify policy document characteristics that have previously been described as important in shaping implementation (Lave and Wenger 1991; Smith 2008). This approach to examining policy documentation offered a detailed insight into how the Welsh Government PSE framework might influence practice. It was also helpful in creating a linkage to the PSE policies produced by each of the four participating schools, offering some understanding of how national policy has been reproduced at the local level and the influences that might have shaped this process. Future studies might benefit from having two independent analysts examine policy documentation to strengthen the reliability of findings.

In order to understand the influences on implementers' interpretation of the PSE policy documentation semi-structured interviews were conducted with LEA level coordinators, Head teachers, School PSE coordinators, and Classroom teachers. Throughout the interviews questions were, where appropriate, adapted to participants' responses. As a result, the data offered an in-depth understanding of different influences that shape the interpretation of policy and resulting practice.

Pupil focus group discussions were one of the approaches to examining practice in response to policy. Of particular interest was how pupils experienced the lessons and how they might represent health knowledge. Focus groups offer a unique opportunity to observe social interaction, negotiation and discussion, and to examine power relationships and social

structures among participants (Reed and Payton 1997). The data collected at each of the participating schools provided some evidence of negotiation and exchange among pupils. However, the short time allocated to the focus group discussions in three of the four schools might have limited the data. Future studies might consider it beneficial for the researcher to appropriately familiarize themselves with the focus group participants. Sufficient time should be set aside for focus group discussions as some pupils might require more time to become comfortable with the focus group setting. It would also provide opportunities for exploring participant responses in more detail.

In addition to examining pupils' experiences of PSE, lesson observations aimed to gain an understanding of the content of PSE lessons and the pedagogic approaches used to convey this content. The observation schedule used in this study was developed on the basis of previous classroom observation research (Teddlie and Liu 2008). In addition to key details about the timing of lessons and a brief description of the lesson content, the observation schedule asked about the physical environment characteristics of the school and classroom. This observation schedule was completed for each observation visit, and supported through digital recordings of lessons¹⁰ and detailed field notes. The data generated through these observations was very rich and therefore enabled a linkage to other data collected through interviews, focus groups and school policy document analysis. Whilst supportive notes and recordings attempted to enhance the reliability of observation data collected, future research using classroom observations might benefit from a second observer.

A summary overview of study findings (Table 5) aimed to identify overlaps and linkages across the different elements of this multi-method study (Thorne et al. 2008). It facilitated the identification of patterns across the data, linkages between different types of data collected at the same school,

¹⁰ As noted earlier, digital recordings of lessons were permitted in three of the four participating schools. As parents in the fourth school were concerned that recording lessons might impede discussion of important topics, I took speed written notes to capture lesson exchanges.

or similarities and differences among the different case study schools. Future studies might find it helpful to use such an approach for mapping data from different methods.

A number of previous studies aimed at examining school policy implementation appeared to be limited by the predominant reliance on questionnaire surveys, or teacher and pupil self-reports without considering practice and pupils' perceptions of it (Formby et al. 2011; Formby and Wolstenholme 2012). This study has attempted to demonstrate the value of employing a multi-method exploratory case study in understanding the processes that influence practice. The advantage of employing such a research approach in order to examine policy implementation has also been highlighted by Kaae et al. (2010). Whilst their findings were concerned with health service provision, their conclusions may still be relevant to school policy implementation. They sought to examine implementation processes of a service element within Danish community pharmacy. Similar to this study, they have employed and triangulated field observations, semi structured interviews, group interviews and documents. In line with conclusions about the methodology employed in this study, they emphasized that their multi-method approach generated in-depth insights into the linkages between structural and process elements of service provision.

In an attempt to deal with the pragmatic limitations of evaluating the long-term impact of health education on health behaviours and health outcomes, the findings from this study suggest the consideration of a short-term indicator for health behaviour change. Integrating a measure of pupils' understanding and application of health knowledge into approaches aimed at evaluating the outcomes of health education interventions may provide an insight into pedagogic processes used to deliver health education. It may also have the potential to validate self-reported health behaviours. Pupils' views might also reveal attitudes and other social cognitive variables which contribute to the formation of health intentions (Fishbein and Ajzen 1987). Findings have also indicated that some of the participating pupils were very

aware of their role in influencing their own health behaviours. They negotiated agreement and discussed the role of contextual influences that might support or undermine health behaviours. This observation suggests that pupils might be able to take control of their own or each other's health behaviours or to initiate health-related changes within their own school contexts. Children have been described as 'active or change agents' in various health contexts (Davies 2008; Smyth et al. 2011; Wihstutz 2011). They can influence various contexts through health behaviour modelling or communication (James and James 2008; Gruber and Haldeman 2009; Redmond 2009). Encouraging pupils to adopt such a role might hold potential for school-based health promotion interventions.

The theoretical framework developed on the basis of a socio-ecological perspective shaped the study approach, design and recruitment. It therefore corresponded to the perspective that informed the search and review of the literature, the organisation of data as well as the generation of findings. This perspective had both strengths and weaknesses, which need to be acknowledged. The PSE policy framework sought to introduce macro level changes by designating the delivery of PSE as statutory specifying themes and topics and making brief suggestions about how lessons should be delivered, although no links were created between classroom techniques and how these were to achieve the goals of the framework. The unique contribution of this study is in addressing the gap between intended policy outcomes and practice by drawing out specific micro level processes that create a link between the desired outcomes of PSE or indeed other health education interventions, and intrapersonal processes associated with health behaviours. Previous evaluations of health education, delivered as part of the English PSHE curriculum (Formby and Wolstenholme 2012), have largely relied on self-reports of teachers and pupils without examining practice in more detail or considering pupils' experiences, perceptions and application of health knowledge. The strength of the socio-ecological perspective taken by this study is that it permits a specific focus on pedagogic practice, its multilevel determinants and their impact on pupil

understanding and application of health behaviours to identify processes that could improve health education effectiveness.

Despite the methodological advantage of this socio-ecological perspective, it has been limited by suggesting a very inclusive approach, attempting to capture data about all elements of this complex interactive system of processes at different levels (McLeroy et al. 1988). Therefore, strategic decisions about the possible scope of the study had to be taken at an early stage. The initial recruitment strategy excluded some counties in Wales for pragmatic reasons. Whilst interviews with local authority- or school staff could have been conducted via telephone, repeated school visits to collect lesson observation data and to facilitate pupil focus groups would have had cost implications beyond the scope of a PhD research project. This decision, however, may have led to the exclusion of important data sources. Future work should avoid limiting the potential sample at such an early stage of recruitment.

Although the recruitment strategy at the organisational level sought to create a balanced sample that represents schools at extreme ends of the continuum of FSM entitlement as indicator of socio-economic deprivation, the response pattern was such that schools with a high FSM rate were more willing to participate than those with a low rate. It was therefore not possible to achieve an ideal sample with equal numbers of schools located at either end of the continuum. Instead, the final sample comprised of three schools that were located in the high FSM entitlement quartile and one in the low FSM entitlement quartile. As the purpose of this study was not to generate statistically generalizable findings but develop theory (Yin 2003), the sample was still compatible with the research aim and facilitated data saturation. Considering that socio-economic deprivation has been found to be linked to young people's health behaviour patterns (Brooks et al. 2006), the sample presenting a broader insight into processes at schools with a high FSM rate therefore represented an advantage.

Data collection at local authority, school, and classroom level was undertaken by only myself due to pragmatic limitations of involving other researchers in PhD work. Although detailed case study notes and repeated visits to schools attempted to deal with potential researcher bias, further work should ensure that methodological processes allow for establishing inter-observer reliability in observations or inter-rater reliability throughout qualitative analysis. The school that was located in the low FSM entitlement quartile did not permit me to record lessons electronically as parents were concerned this might have an impact on how pupils discuss sensitive issues during the lesson. Although I used speedwriting to generate data very similar to verbatim transcripts, some details may have been omitted. The presence of a second researcher to ‘check’ and validate speedwriting notes may have enhanced the quality of data in this instance.

Whilst the decision to collect data from year 7 was informed theoretically and aligned well to the literature reviewed, the timing and duration of data collection was subject to pragmatic constraints of the PhD research project. As PSE lessons were held infrequently and were often pre-allocated to certain days, events or topics, data collection started during the first term of the new academic year. This decision followed advice from the PSE coordinators in the participating schools. However, at the time of data collection participating pupils had just transferred from primary schools and only experienced a limited number of PSE lessons in secondary school. Collecting data about practice at a later stage, such as the end of the academic year, would have enabled pupils to reflect on a larger number and wider variety of PSE lessons during focus groups, and provided more opportunities for them to transform relevant knowledge.

In addition to the timing of data collection, one important weakness of this study is the diversity of topics across the PSE lessons that were observed. Whilst all lessons were concerned with issues that are important to pupils’ development or personal effectiveness, in addition to lessons about healthy eating, smoking or pubertal changes there were also lessons about friendships, careers development and dealing with money. The limited

timeframe allotted to the data collection together with the irregular or infrequent delivery of the subject in some schools limited the opportunity to only observe lessons about health behaviours. In preparation of data collection advice was sought from each of the school PSE coordinators, who in some instances explained that health behaviour lessons were not to be delivered until the following academic year. In order to achieve a more homogenous sample of lesson topics, data collection might have had to be distributed across two academic years.

Whilst the conclusions from this study are drawn from a small sample with a number of pragmatic constraints, they have highlighted some important questions that warrant further research. The links between pupils' understanding and application of health knowledge and lesson processes in a health education context need to be examined further. In addition, the impact of organisational culture in schools on pupils' understanding and application of health knowledge need to be considered in more depth. Further work should also take account of the limitations of this study.

A social ecological perspective implies the consideration of multi-level determinants that reciprocally influence each other. As noted, such a perspective presents a challenge to designing a case study of adequate scope (Yin 2003). The study was limited at policy level by only considering authorities that were subject to the Welsh Government's PSE framework. Although this decision has implications for the applicability of findings beyond Wales, it created as universal a policy context as possible to examine influences on implementation or sense-making located at other levels in more detail. For example, it permitted an insight into how organisational arrangements were shaped by this policy context, how these arrangements interacted with interpersonal and intrapersonal determinants such as teachers' enactment zones, professional identities and beliefs about practice, and how these re-emerged in practice and pupil experiences. Implications for the generalizability of these findings will be discussed separately for each study aim.

Aim 1: To understand how determinants at different socio-ecological levels shape implementers' sense-making and representations of PSE policy documents.

The influences on school policy implementation processes identified in this study are similar to findings elsewhere. For example, competing curricular priorities were found to marginalise health education in Australian schools (McCuaig et al. 2012). An evaluation of the effectiveness of a subject similar to PSE, implemented in the English curriculum, has identified that curricular priorities compete for time and resources in schools (Formby and Wolstenholme 2012). PSHE has not been made a statutory requirement for schools in England to deliver, as is the case with PSE in Wales. However, the National Curriculum sets out the requirements for examined subjects such as Maths, English, and Science for England and Wales (DfES 1988; 2002), creating a policy context that shows similarities between the two countries.

Despite being a statutory requirement, the PSE framework leaves local authorities and schools to decide how the subject is to be implemented. Therefore, the processes observed in the participating schools and authorities are likely to differ from approaches taken by other Welsh authorities. Indicative of variations were differences among school policies, and ways in which authorities' websites represent PSE. Whilst the findings from this study may not necessarily be applicable to authorities and schools other than those participating, they highlight important theoretical implications for explaining influences on sense-making of policy and subsequent practice that are generalizable more widely.

Aim2: To understand pupil experiences and perceptions of PSE lessons and their context to examine how the PSE policy re-emerges in practice.

The literature that has informed the data collection on practice represented international research, therefore findings in response to research aim 2 may be generalizable to Welsh authorities and beyond. Apart from an Estyn school inspection report about the quality of PSE in schools, no peer-reviewed publications about the evaluation of PSE in Wales were available at the time of writing. It has become evident that the policy context, and implementers' sense-making at different levels and practice are closely connected, and that these levels of influence need to be aligned if they are to be successful in facilitating pupils' understanding and application of health knowledge. From the literature it appeared none of the previous evaluations of school-based health education interventions or policies have considered the significance of pupils' knowledge transformation processes and how these might be elicited through pedagogic approaches. Therefore, further research should take account of these links, and examine the extent to which they are applicable across Wales and beyond.

8.8. Conclusions

This thesis demonstrates how different level determinants shape policy implementation of the PSE framework, to highlight important processes that might influence the delivery of school based health education elsewhere. The study adds to existing research in that it draws on the educational and health promotion literature to identify links that have not previously been made. The limited effect of school based health education on behaviours and outcomes has been attributed to pedagogic practice in lessons, although little attention has been given to the processes behind this connection. It has become evident from the literature that competency-focused pedagogic approaches may have the potential to enhance health education effectiveness in bringing about health behavior change. Pupils' understanding and application of health knowledge might provide an insight into lesson processes, and inform evaluation and assessment of health education or related curricular programmes. In addition, pupils might be able to take control of their own or influence each other's health behaviours, and initiate health-related changes within their own school contexts.

The study has also attempted to highlight the barriers associated with the implementation of competency-focused approaches in health education, drawing on a socio-ecological perspective. This approach has identified that the influence of a performance-focused policy context affects situated determinants of practice: Head teachers' decision-making shapes organizational arrangements in schools, which in turn influence staff beliefs and perceptions about practice. These re-emerge in classroom processes and have also been found to shape pupils' experiences. It is recommended to approach these barriers through policy changes as well as organizational arrangements to facilitate teachers' collaboration and skill development.

This study has exclusively drawn on data collected from four schools in Wales, whilst its approach has been informed by the international literature and findings reflect observations from other countries with Western education systems. By highlighting the importance of multi-level influences on classroom processes and the role of these in shaping health behaviours, the findings from this study may have the potential to enhance the effectiveness of school-based health promotion.

APPENDICES

Appendix 1 - Literature search approach: Self-regulation interventions with school-aged children

A comprehensive literature search was performed to retrieve all relevant peer-reviewed publications since 1989. This time point was chosen because it coincided with a number of new educational reforms introduced by the newly devolved Welsh administration, and because it would enable the literature review to cover the past 20 years of research development in relation to school-based interventions that promote health facilitating behaviours or restrict health compromising behaviours and that used components of self-regulation to achieve behaviour change.

The aim was to focus on systematic literature reviews of interventions or papers on randomized controlled trials of self-regulation interventions with healthy, mainstream school-aged pupils; interventions that were either about promoting self-regulated learning or about the self-regulation of health behaviours. Where papers did not explicitly refer to promoting or using self-regulatory strategies in order to facilitate a certain outcome, the intervention approaches presented within the papers were examined more closely to identify whether these approaches matched key concepts of self-regulation defined elsewhere (e.g. Gollwitzer, 1999; Maes & Karoly, 2005; Schunk & Zimmerman, 1994).

The literature search used the following databases:

- IBSS
- OVID (Embase 1980 to present, Ovid Medline ® 1950-2009, PsychINFO (1806 – 2009), All EBM Reviews (Cochrane Review Databases))
- CSA Sociological Abstracts
- ASSIA (Applied Social Sciences Index and Abstracts)

- ERIC (Australian Education Index - 1979 to date (AUEI), British Education Index - 1975 to date (BREI) ERIC - 1966 to date (ERIC (Educational Resources Information Centre))

Search terms

A keyword search was developed as listed in Table 1 below. The search words were applied to the title, abstract and keywords of all entries and used the following sets of search terms: (Health promotion OR Schools) AND self regulation AND children AND (systematic literature reviews or RCTs).

Table 1: Keyword combinations used in the literature search strategy. The asterisks indicate where a truncated version of the word was used.

| | | | | | | | | |
|--|----|---|-----|--|-----|--|-----|--|
| (health* campaign* OR wellness program* OR promotion* item* OR health* habit* OR health behavio* OR (physical within 5 (fit*OR activ*)) OR (prevent* within 5 (obesit* OR smok* OR drug* OR alcohol*)) | OR | (classroom* OR class room* OR primary school* OR secondary school* OR middle school* OR grammar school* OR high school OR college OR school based OR juniOR school* OR infant school* OR pedagog*) | AND | (self regulat* OR social control, informal/ OR social control, OR self awareness OR self efficacy OR self monitoring OR (regulat* within 2 (behavio* OR learn*)) OR self determinat* OR ((self monitor* OR self manag*) within 5 (learn* OR abilit* OR teach* OR | AND | children* OR child* OR girl* OR boy* OR teen* OR teenag* OR youth* OR (age* within 1 (four OR five OR six OR seven OR eight OR nine OR ten OR eleven OR twelve | AND | (lit* review* OR RCT* OR random* control* trial*) |
|--|----|---|-----|--|-----|--|-----|--|

| | | | | | | | | |
|---|--|--|--|---|--|--|--|--|
| OR (health* within2 diet*) OR (health within 2 lifestyle*) OR ((promote* OR uptak* OR encourage* OR increas* OR maintain* OR sustain*) within 5 (health* behavio*)) OR (redu* within 5 (obes* OR smok* OR drug* OR alcohol*)) | | | | regulat*) OR (goal within 3 (maintenance OR maintain* OR set* OR behavio* OR attain* OR pursu*)) OR self confidence OR (problem solv* within 2 (strateg* OR program*)) OR ((cooperat* OR collaborat* OR group) within 2 learn*)) | | OR thirteen OR fourteen OR fifteen OR sixteen)) | | |
|---|--|--|--|---|--|--|--|--|

Inclusion and exclusion criteria

Table 2 below defines all inclusion and exclusion criteria applied to the literature search. The inclusion criteria were designed to include only those publications that were of immediate relevance to this case study. Titles and abstracts of all search results were read and if they were eligible for inclusion into the review according to the inclusion criteria below, full papers were retrieved. These were read and a further six papers were excluded from the review.

Table 2: The inclusion and exclusion criteria of the literature search.

| Inclusion criteria | Exclusion criteria |
|---|---|
| 1. School-based health promotion interventions aimed at improving health behaviours or decreasing health compromising behaviours and that included aspects of self regulation (e.g. goal related behaviours and strategies) | 1. Mental health intervention or mental health service provision |
| 2. School-based educational interventions aimed at promoting self regulated learning (e.g. collaborative learning, goal related behaviour and strategies) | 2. Student counselling |
| 3. Peer reviewed, original, empirical published research or reviews | 3. Chronic illness treatments or interventions |
| 4. Research evidence worldwide (developed countries) | 4. Children younger than four years and young people older than 16 years (nursery school, students in higher or vocational education) |
| 5. School-aged children and young people (4 to 16 years of age) | 5. Developing countries |
| 6. Peer-reviewed articles | 6. Non-peer-reviewed articles / abstracts |

7. Studies published from 1989 onwards

7. Studies published before 1989

Search outputs

- IBSS: 272 results; none of the papers were eligible for inclusion into the review;
- Ovid: 111 results, yielded 3 papers that were relevant;
- CSA sociological abstracts: 14 results but none relevant for inclusion;
- ASSIA: 5 results yielded 2 papers in total for inclusion into review;
- AUEI, BREI and ERIC: 2630 results; upon screening the first 300 most relevant titles 7 papers were retrieved.

Six publications were included in this literature review. The full reference, the type of study, brief information about the intervention, outcomes and ages of participants are summarised for each paper in the overview Table 3 below. More details about these interventions are presented in the following section.

Table 3. Brief information about studies included in this review.

| Full reference | Type of study | Intervention | Outcomes | Age of participants |
|---|------------------------------|---|--|----------------------------------|
| School-based self-regulation interventions aimed to promote health behaviours | | | | |
| Dishman, R.K., Motl R.W., Saunders R., Felton, G., Ward, D.S., Dowda, M. & Pate, R.R. (2004) Self-efficacy partially mediates the effect of a school-based physical-activity intervention among adolescent girls. <i>Preventive Medicine. 38(5).</i> 628-636. | RCT | Teachers developed behavioural skill instructional units that emphasized the acquisition and practice of self regulatory behaviours (goal setting, time management, identifying and overcoming barriers); the intervention involved a cross-curricular implementation of the programme. | Changes in self efficacy led to increased physical activity in adolescent girls. | 9 th grade girls (US) |
| Robinson, T.N. (1999). Reducing children's television viewing to prevent obesity: A randomized controlled trial. <i>JAMA, 282(16),</i> 1561-1567. | RCT | Based on Bandura's social cognitive theory, lessons were about self monitoring and self reporting of television; total of 18 hours of curriculum; families received an electronic control device to monitor and restrict TV use time | Intervention group showed a significant decrease in body mass index. | 8-9 years of age |
| Araujo-Soares, V. et al. 2009. Development and exploratory cluster-randomised opportunistic trial of a theory-based | Cluster - random ised design | Classroom-based lessons based on SCT, self-regulation and planning in order to enhance the duration of physical activity. | Improved the length of physical activity young people engaged in, and sustained this increase for some time after the intervention was completed | 10-12 years |

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| intervention to enhance physical activity among adolescents. Psychology and Health 24(7), pp. 805-822. | | | | |
| Peralta, L. R. et al. 2009. Promoting healthy lifestyles among adolescent boys: The Fitness Improvement and Lifestyle Awareness Program RCT. Preventive Medicine 48(6), pp. 537-542. | RCT | The 6 month intervention comprised of one 60 minute classroom-based session and two 20-minute lunchtime physical activity sessions per week. These were aimed at encouraging children to monitor and self-regulate their health-related behaviours. | Compared with the comparison group, the intervention group displayed a smaller increase in BMI, a greater reduction in waist circumference and percentage in body fat and time spent with small screen recreation on weekends. It also increased the time spent with physical activity during the week. | 12-13 years |
| School-based self-regulation interventions aimed at promoting academic outcomes | | | | |
| Barnett, W.S., Jung, K., Yarosz, D.J., Thomas, J., Hornbeck, A., Stechuk, R. & Burns, S. (2008). Educational Effects of the Tools of the Mind Curriculum: A Randomized Trial. <i>Early Childhood Research Quarterly</i> , 23(3), 299-313. | RCT | The Tools of the Mind intervention is based on Vygotsky, and aims to develop self regulation while teaching literacy and maths skills. The curriculum consisted of a large variety of different activities which contained self-regulatory components such as children's own construction of knowledge, planning (teacher helps children to write play plans for a mini drama performance), and self-regulatory private speech. | The Tools curriculum was found to improve classroom quality and led to a reduction of problem behaviours | 3-4 years |

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|--|------------|---|---|--|
| <p>Kam., C.M., Greenberg, M.T. & Kusche, C.A. (2004). Sustained Effects of the PATHS Curriculum on the Social and Psychological Adjustment of Children in Special Education. <i>Journal of Emotional and Behavioral Disorders, 12(2)</i>, 66-78.</p> | <p>RCT</p> | <p>The Promoting Alternative Thinking Strategies (PATHS) programme focuses on teaching and reinforcing emotional and behavioural self-regulation skills. The problem-solving part of PATHS encourages pupils to discuss feelings and relationships, and promotes motional and interpersonal understanding</p> | <p>Offering PATHS to special needs pupils was found to lead to a reduced frequency of internalising and externalising behaviours.</p> | <p>8 -9 year aged pupils with disabilities</p> |
| | | | | |

Appendix 2 - Literature search approach: Problem-based learning with school aged learners

Method

The aim of this literature review was to summarise findings from studies using PBL-based approaches with school-aged learners to identify 1) how teaching approaches termed PBL have been implemented in evaluation studies with school-aged learners and 2) their effects on school pupils' personal and academic development. Dochy, Segers et al's (2003) method for study selection informed the procedure of the present review. Using the search terms [problem (-) based learning] and [PBL], PsychINFO, the British Education Index (BREI) within ERIC and the Cochrane Review database were searched for relevant papers that were published since 2000. Glass, McGaw et al. (1981) noted that the identification of literature is the stage where most bias potentially occurs. We acknowledge that our search strategy has several weaknesses including the limited number of databases was searched, the fact that no 'snowballing' or searches for 'grey literature' were conducted and the limited number of search terms employed. As such it is clear that some studies may have been missed. However, to reduce the likelihood of introducing further bias at this stage, the electronic search was not narrowed down further and subsequent iterations were done by hand. This was mainly because the participants' age group was often not or insufficiently reflected in titles, key words or abstracts. Following initial selection on the basis of titles, the output of the electronic search included a total of 126 papers. Abstracts were retrieved and read by two independent researchers, and papers were selected according to the following criteria:

- Problem-based learning (PBL) had to be mentioned in the title, abstract or key words;
- Studies had to be with school-aged children (between 4 and 18 years);

- Papers had to be published, peer-reviewed, original or primary and empirical studies.

Although the focus on studies labelled as ‘PBL’ may potentially exclude valuable research that uses similar components or approaches that are termed in a different way, it permitted a closer focus on the definitions used to describe PBL used within these studies, and the extent to which they varied from Hmelo-Silver’s definition (Hmelo-Silver 2004). The majority of papers focussed on PBL with graduate or postgraduate students in Medical Education, Nursing, Science and other educational contexts not described in further detail. The remainder covered subjects like Engineering, Business Education, Economics, Psychology, Sports Science, and Social Work. Six papers reported on the use of PBL with school-aged children, which formed the final sample of papers. A narrative literature review approach was taken to synthesize these in a non-numeric but ‘systematic and creative way’ (van Ijzendoorn 1997) by condensing findings from the literature search, summarising the contents of papers, and evaluating the quality of studies and their contribution towards the focus of the literature review (Green et al. 2006). Albanese and Mitchell (1993) previously used a narrative integration of the literature and their synthesis of findings was supported by subsequent meta-analyses (Vernon and Blake 1993; Dochy et al. 2003).

A data extraction sheet was devised on the basis of quality criteria for interventions (Michie et al. 2009) to identify: a) the context of PBL teaching with young learners in schools (i.e. classroom teaching of curriculum content or specific projects); b) specific process components (i.e. the presentation of a problem scenario, pupils’ generation of hypotheses, independent study or group work, and self- as well as peer evaluation and reflection) and c) the outcomes of PBL teaching (i.e. student enjoyment, support of personal development, improved learning processes and academic performance). Two independent researchers read the papers and

completed the data extraction forms to support the validity of the recorded information; there were no disagreements or inconsistencies. Due to the diversity of samples and outcome measures used a numerical synthesis of findings was considered less meaningful than a qualitative synthesis and presentation of ‘lessons learnt’ from across the studies reviewed.

Table 1. Summary table of studies included in this review.

| | (1) (Azer 2009) | (2) (Simons and Klein 2007) | (3) (Sungur and Tekkaya 2006) | (4) (Cerezo 2004) | (5) (Zumbach et al. 2004) | (6) (Wang et al. 2001) |
|--|--|--|---|---|---|---|
| Subject context | Local Geography (built environment) and Biology (health education) classes. | Science and Technology curriculum, supplemental but compulsory course component. | Biology, part of regular curriculum . | Maths and Science. | General teaching in elementary school (One lesson). | Extracurricular learning experience provided by Motorola; initiative to develop communication and marketing plans for teenage target groups. |
| Setting | Schools (Australia) | School (US) | School (Turkey) | 3 Middle schools in a city school system South East US | Primary school (Germany) | Expeditions 2000 (commercial initiative by Motorola UK) |
| Method of evaluation/ research design | Cross-sectional comparison to assess pupils’ perceptions of PBL. | Cross-sectional comparison (different levels of scaffolding). | Cross-sectional comparison (traditional teaching in control group, problem-based learning in the experimental group). | Case study (qualitative mixed methods). | Cross-sectional comparison (traditional lecture-based class compared with PBL class). | Repeated measures design using mixed methods (survey, observation of online communication, weekly feedback surveys, and interviews with mentors). |
| Participant numbers and school grades/ age groups | 187 pupils, 5-7 th Grade (10-12 years) | 111 pupils, 7 th grade (12 years) | 61 pupils, 10 th Grade (15-16 years) | 14 at risk pupils (8 th grade, 13 years), 5 maths, 9 science students. | 49 elementary school 4 th grade pupils (11 years) | 27 teenagers (13-18 years), children of Motorola employees. |

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|--|--|---|--|--|---|--|
| <p>Content and process of PBL teaching if available</p> | <p>Cases were discussed in 2-3 45 minute tutorials per case. Pupils had scheduled sessions to work independently (one practical class and one self directed session). Materials were provided as relevant for each case. 2-3 teachers per school took part in a two – day training workshop introducing the concept of PBL, theoretical basis, writing PBL Cases and how to turn curriculum objectives into PBL cases.</p> | <p>A 3-week hypermedia (website-based) problem-based programme was developed. Three classes were recruited with each receiving a different level of scaffolding (structured questions as guidance within programme completion): one group received no scaffolding, one had the option of using it and one group was required to use it. The programme contained prompts and links to sources of information. A facilitator was available and provided additional support.</p> | <p>The experimental group received instruction according to the PBL model used by Curry, Lubbers, and Tjoe (2001). Timing of the instruction was one four-week unit in Biology. Students were required to read the problem scenario, take notes and participate in group discussion to generate hypotheses and learning issues. Students were then required to independently gather information. Upon completion, they evaluated their group and themselves.</p> | <p>PBL case (one case during the end of Spring quarter) was presented. Teachers were already familiar with PBL in middle schools. Scenarios were presented, and then groups worked on identifying what they knew. The generation of hypotheses was facilitated by the teacher. Groups then focused on deciding how to research the hypotheses and used written and PC resources.</p> | <p>A single PBL unit was developed using PowerPoint. Prior to the presentation of the problem scenario, children were introduced to rules of engagement and how to deal with upcoming problems. Adults monitored and occasionally prompted with stimulating questions; learning objectives were developed in supervised small group discussions. To answer questions presented by the programme pupils collectively navigated through the programme. At certain points the programme posed leading questions (scaffolding). The final stage was a group discussion where group consensus was sought about the answer to</p> | <p>Using online collaboration in problem-based learning, students worked in teams and with the help of expert collaborators to create marketing and communication plans for mobile phone (cell phone) products. The project lasted five weeks, teenagers were supported by onsite and online mentors, encouraged to collaborate online and in face to face meetings (weekly 2-hour meetings). Scaffolding and guidance was provided through the website (milestones). Meetings were mainly about reflection and monitoring team progress. Although the method contains obvious elements of PBL and the term is used occasionally within the paper, there is no explicit reference indicating that PBL served as framework for course delivery.</p> |
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|--------------------------------|---|--|--|---|--|--|
| | | | | | the problem scenario and a justification for this solution had to be given to the teacher. | |
| Effects of PBL teaching | Students perceived the approach as engaging and enjoyed the process of PBL and case discussions. They felt it had added to their understanding (85%). Pupils' views were not affected by demographic factors or first language spoken ($p = .751$ (5 th grade), $p = .993$ (6 th grade) and $p = .569$ (7 th grade)). | The requirement of scaffolds in PBL led to more highly organized project notebooks with a higher percentage of note book entries directly linked to the problem. The three scaffolding conditions (none, optional and required) were found to have statistically significant effects on student project performance ($F(8,210) = 13.26, p < .001, \eta^2 = 0.34$). | The PBL group had significantly higher scores in relation to intrinsic goal orientation and task value, higher levels of critical thinking, metacognitive self-regulation, effort regulation, and peer learning. There was a statistically significant difference in self-reported motivation between the two groups ($F(6, 54) = 3.99, p = .002, \eta^2 = 0.31$) PBL was also found to significantly affect the use of self-reported learning strategies: $F(9, 51) = 2.40, p = .002, \eta^2 = 0.30$ | PBL helped the learning environment and supported students' interest and motivated independent work. Pupils felt it was beneficial for their learning, was found to affect their overall performance and increased their self-efficacy. | PBL was found to promote intrinsic motivation and led to better performance at follow-up. However, the differences between the control and the experimental group vanished between pre and post-test data collection. PBL led to significantly higher performance in a follow-up test ($F(2, 43) = 14.9, p < 0.001; \eta^2 = 0.41$). | Students showed a considerable increase in self-confidence in collaborative online work to resolve problems. Students also developed social and leadership skills and were better able to plan collective tasks. A comparison between pre and post-treatment data indicated that competence in using online collaborative tools increased significantly ($p < .0001$), as did confidence in collaborating online ($p = .0326$). |

| | | | | | | |
|---|---|---|--|--|---|---|
| Type of measures used. | Self-report questionnaires (1-5 Likert) | Combination of self-report and objective measures: teacher ratings of grade point averages as measure of achievement, attitude survey (self-report), qualitative notebooks, and observations. | Self-reported motivation and learning strategies | Self-report (interviews about perceptions and experiences of PBL). | Self-report. | Self-report. |
| Validity and reliability of measures used. | Developed in a previous study and validated, but no reliability values reported | Reliability coefficient .74 for post-test assessment, .84 for attitude survey | Used MLSQ (Motivated Learning Strategies Questionnaire) as established measure, reliability values reported (for internal consistency coefficient alpha ranged between .54 and .93 for the motivation section; .61-.81 for the learning strategy section). | Questions adapted from previous research, but no details about validation. | Self-developed, not reported reliability or validation process. | No details reported |
| Use of appropriate comparison groups. | Explored group differences in perceptions regarding the problem-based learning tutorials in the fifth, sixth, and seventh grades. | Measured the effects of scaffolding in PBL sessions, three different groups each receiving a different level. | Matched classes randomly assigned to control and experimental | Not applicable. | Comparable groups recruited. | No comparison group, before and after training events |
| Timing of follow-up | None reported. | Immediate follow-up | No time delay | Between 1 day and 3 | Pre-and post- test as | No details on delay; survey |

| | | | | | | |
|---|---|---|---|---|---|--|
| assessment. | | (evaluation on completion) | apparent, immediately after classroom instruction (pre-and post-test). | weeks of PBL case presentation. | well as follow-up test five weeks later. | conducted before and after the project. |
| Report of effect sizes and identification of individual effects of PBL components on outcomes. | None reported | Scaffolding conditions on student project performance was relatively strong but no significant effect on post-test scores | Significant scores on collective dependent variables of intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance and test anxiety (no sub-categorisation of components). | Not applicable. | PBL increased motivation and led to better knowledge acquisition in follow up test. | No effect sizes reported. |
| Appropriateness of analysis. | Detailed description of analysis processes, analyses of variance used to identify differences between groups. | Pearson's r to determine inter-rater agreement, analyses of variance to determine effect of conditions; multiple regression analyses to examine effect of scaffolding on achievement levels and post-test scores. | Analyses of variance to determine differences pre-and post-test scores; and differences between groups to determine difference between pre-and post-test scores. | Content analysis processes described did not mention whether inter-rater agreement was established or specify any processes to validate the analysis processes. | Analyses of variance to compare pre-and follow up test scores. | Comparison of mean scores before and after intervention (t-tests). |
| Accounted for subgroup differences or moderating variables. | Subgroups (language spoken at home) | None reported | Checked for baseline differences between control and experiment | Exploratory case study approach to account for diversity in | None reported. | None reported. |

| | | | | | | |
|-----------------------------------|--------------|--------------|-----------------|-------------------|------------------|---------------------------------------|
| | | | al group. | participant s. | | |
| Reported on attrition. | Not reported | Not reported | Not reported | Not reported. | None reported | 3 dropped out from group of 30. |

Appendix 3 – Pupil information and consent forms

[The original information sheet was presented to pupils as folded leaflet, on which the text was separated into three columns]

Understanding teaching styles in personal, social and health education (PSHE) and their effects

Information for students



What is this about?

Your school has agreed to support a study, carried out by me (Gabi), a researcher from Cardiff University, which is about teaching styles used in PSE. I would like to find out how topics that relate to health and well-being are taught and how the teaching helps students take on the information given in class (such as taking up exercise or eating healthily as a result of having talked about it in school).

What do I have to do?

I will observe PSE lessons that cover topics related to health and well-being. I will take observation notes and record the lessons with a digital voice recorder. Your job is to do what you would normally do in PSE lessons. I will also be inviting pupils to take part in a focus group about teaching in PSE and health-and well-being as I am interested to find out how you see the school supporting these things. Please be aware that you may leave the focus group at any point in time without giving reasons, and with no further consequences. If you are happy to be included in this study please complete the consent form you have been given.

What do I get for taking part?

You get a chance to talk about your experience of PSE and know that your participation can make a real contribution to important decisions about school-based health-and well-being promotion.



What will you do with the information you collect?

The overall findings from this study will be passed on to the school, which might help them when creating new PSE lessons. I will use the information to write my PhD thesis, a presentation at a conference, an academic report or a study summary for other groups of people who may be interested. There will be no individual names of pupils, teachers and even schools so nobody would know who said what.

How do I know my anonymity is protected?

Apart from consent forms which I will keep separate from my data collection, I will not record names of individual students to identify them later on, so nobody would know who has taken part and who has said what during lessons or focus groups. Written notes and records will be kept in locked filing cabinets in the

University. I won't tell your parents, teachers or friends about anything I hear or say you see or do. However I would have to tell someone else if I found out about something that might put someone in danger.

What if I do not want to take part?

Your parents or caregivers have given me permission to invite you to take part in this study. If however you feel that you do not want to take part (and you do not need to give any reasons) then please say so. There will be no consequences for you whatsoever.

How do I know I will be safe if no teacher is around during focus groups?

The focus groups will be held in a 'public' part of the school where people walk past or in a room where the door is left open and teachers are around and can see us. I have been 'police checked' before starting this study and have worked with kids of your age on previous projects.

Who are you?

My name is Gabi Jerzembek. After working in Arts and Crafts I moved on to study Psychology and Research Methods. I now complete a project to achieve a doctorate (PhD). If you would like any further information about this study or have any further questions please get in touch (02920 879161; jerzembekg@cardiff.ac.uk). I'll be happy to answer any questions you may have and look forward to meeting you.

Thanks for reading.

Please complete the consent form now.



(Images from Carlton Cards Ltd.)

[Pupil consent form]

Understanding teaching styles in personal, social and health education (PSE) and their effects

Are you happy to take part?

Please read each of the sentences below and tick the box if you understand.
If you do not understand anything, please ask the researcher.

I know what the study is about and have received an information leaflet.

What is said during PSE lessons and during the focus group will be recorded.

No-one will be able to listen to the recording or read observation notes except the researcher and her supervisors at Cardiff University.

What pupils say at the focus group and during lessons will be reported in such a way that no-one can tell who they are, or which school they attend. **The researchers would have to tell someone else if they found out about something that might put someone in danger.**

What pupils say at the focus group will be used together with other information in order to write a PhD thesis, for presentations, academic reports and to produce a study summary for other interested groups.

I can decide if I want to take part in a focus group or if I want to be included in the observation.

I can leave at any time after the focus group has started without saying why.

I can decide not to take part or to leave the focus group after it has started

Now please tick the box below if you agree to take part.

I agree to take part in this observation study

And am happy to be included in a focus group

My nameSchool

Year

Date

Appendix 4 - Interview schedule stakeholders

Stakeholder interview schedule

[semi-structured, use questions to prompt as appropriate]

1. [Introduction and consent]
2. [Purpose of the meeting: consult about teaching of PSE]
3. **Can you tell me about your role and responsibilities** (structure, where located)
4. **What are the key aims of PSE** (also in relation to health education, cross-curricular links)
5. **What do you see as the barriers and facilitated of implementing the new PSE curriculum** (what works for whom and in what circumstances)
6. **What teaching approaches do you feel are appropriate for delivering PSE lessons, and why?**
7. **What do you see as barriers and facilitators to using certain teaching approaches in PSE ?**

Appendix 5 - Focus group schedule

Pupil focus group schedule

[semi-structured, use questions to prompt as appropriate]

1. [Introduction and consent/ confidentiality/ right to withdraw]
2. [Emphasize that focus group intends to find out about pupils' views and opinions, there are no right or wrong answers]
3. **What do you think PSE is for?**
4. **What is the best/ worst about PSE** (prompt regarding teaching approaches if appropriate)
5. **If you were tasked with designing a PSE lesson, what would you include?** (teaching approaches, activities, content?)
6. **What comes to your mind first when you hear the words health and wellbeing?** (Follow on from whatever responses are given i.e. health behaviours, mental wellbeing.)
7. **How important do you think is it?**
8. **What does your school do to help you be healthy and happy?**

Appendix 6 - Lessons observation schedule

Observation schedule

Date:

Time/ lesson:

Location

Teacher (dedicated PSE teacher or form tutor, establish level of training in advance if possible):

Observation of the setting: the school and the classroom

(Record this information prior to or after the lesson observation)

Sketch of classroom layout including notes on visual signals of PSE within the classroom

| | |
|---|--|
| | |
| No of staff | |
| No of children | |
| F/M staff | |
| F/M children | |
| Age kids | |
| Significant characteristics of people or environment (first impressions) | |
| | |

| | |
|---|--|
| | |
| Nature and type of school (First impressions) | |
| Physical condition of buildings (run down, modern) | |
| <p>Ethos in school (institutional culture, extent of student engagement and quality of student-teacher relationships)</p> <p>Is student work displayed around the corridors and reception area?</p> <p>Any posters or other evidence of student-teacher initiatives?</p> <p>What is the feel around sporadic observations of</p> | |

| | |
|---|--|
| <p>student-teacher interactions?</p> | |
| <p>Evidence of emphasis on health and well-being in school or classroom (if so what is it)</p> <p>Are there any immediate impressions that the school places emphasis on health and well-being?</p> <p>Are there posters displayed/ any school activities evident that are about health and well-being?</p> | |
| <p>Prepare for the lesson observation</p> | |
| <p>List of descriptive questions for observing the activity: keep in mind when observing PSE teaching and try to answer them after the observation.</p> <ol style="list-style-type: none"> 1) What are all the ways space is organised by activities? 2) What are all the ways objects are used in activities 3) How are acts a part of activities? | |

- 4) Can you describe in detail all the activities?
- 5) What are all the ways events incorporate activities?
- 6) How do activities fall into time periods?
- 7) How are actors involved in activities?
- 8) What activities are goal seeking or linked to goals?
- 9) What are all the ways feelings affect activities?

Observation of the activity: the lesson

(Remember, the focus is on teaching approaches used)

Collaborative teaching and learning

Are students assigned to groups? (if so, how?)

Does the group work seem a coordinated, synchronised activity?

Are the groups formed to work on a unified task and represent shared meanings?

Is there any form of system to reward group performance?

Are pupils given roles within that group?

| | |
|--|--|
| <p>Are students cooperating/ discussing constructively?</p> <p>Does the group work seem well prepared and thought through by the teacher?</p> <p>Do pupils seem familiar with group work (have had briefing/ training)?</p> <p>Is the teacher clear about group goals/ aims of the lesson and what the group has to do?</p> | |
| <p>Reinforcement and modelling</p> <p>Is the teacher using reinforcement? If so, in what way?</p> <p>Is he or she using punishment? If so, in what way?</p> <p>Is reinforcement used with a whole group or with individuals? (explain in more detail what was happening – e.g. praise, privileges as reward for what?)</p> <p>Is the teacher modelling behaviours? If so how? What behaviours are being modelled?</p> <p>Is she using peers as role models? What students are used as role models, how and for which target behaviours?</p> | |

Self-regulatory inner speech

(Similar words adults would use to regulate and direct children, gradually transformed to self-direct actions (e.g. 'am I working quickly, am I following the plan etc)

Does the teacher encourage pupils to use 'inner self-talk' to self-regulate their learning?

Is there any evidence that the teacher has taught pupils to use such techniques? If so, how is it evident?

Is she prompting pupils to use it? If so, how?

In what instances is self-regulatory talk used? (e.g. to accomplish a learning task, to improve behaviour) – Record in detail in what context these behaviours are being encouraged.

Goal setting

Are students encouraged to set themselves goals? As a group or individually?

Are they asked to think about the possible outcomes of achieving those goals?

Are they asked to do their own planning to achieve the goals? (planning is a mental image of future actions)

Are pupils asked to time manage their work?

Are they encouraged to think about barriers to goal achievement?

Are they encouraged to think about how to resolve problems that are in the way of goal achievement?

Are students encouraged to monitor themselves and their own progress towards goal achievement?

Are students asked to evaluate themselves or their peers? If so, how?

Notes after the lesson observation:

Objectives of the lesson,

Details of tasks,

Group composition

| | |
|---|--|
| Briefing related to specific lesson Teaching approach used | |
|---|--|

Additional reflections

Appendix 7 - Extracts from the PSE policy framework documentation

The supportive documentation published alongside the PSE framework document included: A PSE action plan to aid implementation (Box 1), a template for a school policy (Box 2), an explanation how other subjects support the development of skills that relate to PSE (Box 3) as well as a checklist for monitoring PSE provision (Box 4).

Box 1: Extract from the exemplar PSE action plan for secondary schools

Extract from: Exemplar PSE Action Plan (WAG, 2008)

Priority: To develop and implement coherent PSE provision to ensure learners experience progressive and relevant PSE

Target: To review existing PSE provision in preparation for the introduction of the revised PSE framework

Success Criteria: 1. Awareness raised with staff 2. PSE audit completed 3. School PSE policy updated 4. Schemes of work revised 5. Review of resources

Box 2. Extract from a sample school policy for PSE.

A sample template for a Personal and Social Education Policy (WAG, 2008)

- **A definition of Personal and Social Education**

PSE comprises all that a school or college undertakes to support and promote the personal and social development and well-being of its learners. *Add/insert a school specific definition.*

- **Statutory Requirements**

PSE is a statutory element within the basic curriculum for pupils aged 5 to 16. It is the responsibility of schools to plan and deliver broad, balanced PSE provision to meet the specific needs of all learners.

- **Aims of PSE**

PSE reflects the aims of the *PSE Framework for 7 to 19 year olds in Wales* (2008) and specifically the following school/college aims: *List relevant aims from the PSE Framework and school-specific aims*

- **The Delivery of PSE**

Text to explain the model(s) of delivery including a reference to other features of the life of the school that contribute to PSE. Suggestions about teaching methods and details about the use of external agencies/visitors to support the delivery of PSE.

Box 3. An explanation of how PSE is supported by other subjects across the curriculum.

Extract from ‘PSE across the curriculum’ (WAG, 2008)

Careers and the world of work contributes to learners’ personal and social education through contacts with the world of work and by challenging stereotypes. It also provides opportunities to develop their understanding of social interaction through working with others. PSE applies throughout the Skills and Range sections of the learning outcomes for Key Stages 3 and 4 and Post-16.

English contributes to learners’ personal and social education by providing opportunities to develop their understanding of social interaction through collaborative working. The exploration and reflection upon texts dealing with a range of themes can encourage the development of self-knowledge, emotional maturity and empathy with the human condition.

In **design and technology**, learners should work in contexts that allow them to make decisions based on the values that underpin society, helping them become active and informed citizens. They should be made aware of human achievements and the big ideas that have shaped the world. They should be encouraged to be enterprising and innovative in their designing and making, while having regard for sustainability and environmental issues in the twenty-first century.

Box 4: Checklist for monitoring the provision of PSE.

| Checklist; Monitoring PSE Provision (WAG, 2008) | | | |
|--|-----------------------|------------------------|---------------------|
| Judgements should be made, where possible, by talking to learners about their work. Lesson observations and discussions with staff will also contribute. | | | |
| Criteria | <i>Fully in place</i> | <i>Partly in place</i> | <i>Not in place</i> |
| Standards of learning and teaching in PSE are monitored throughout each year group. | | | |
| Sampling of learners’ work and observation of PSE lessons takes place regularly | | | |
| Whole-school/college contributions to the personal and social development of the learners are reviewed. | | | |
| Learners are given opportunities to provide feedback. | | | |
| The management of budgets and appropriate use of resources are scrutinised. | | | |

In addition to these, there was a checklist for the role of visitors, a school self-evaluation document that draws on the Estyn framework (permitting schools to self-evaluate against Estyn criteria about how well they are doing in delivering PSE). There was also a checklist for curriculum planning, a checklist of managing PSE (three-point Likert scale with response format ranging between ‘in place’ and ‘not in place’ and a PSE audit document for use within schools that is required to be filled in by subject or departmental leaders to identify where in their specialist subject contributes to PSE.

Appendix 8 - Illustrations of PSE classroom layout arrangements

Figure 1. PSE classroom layout at Meadow School – lessons delivered in the library

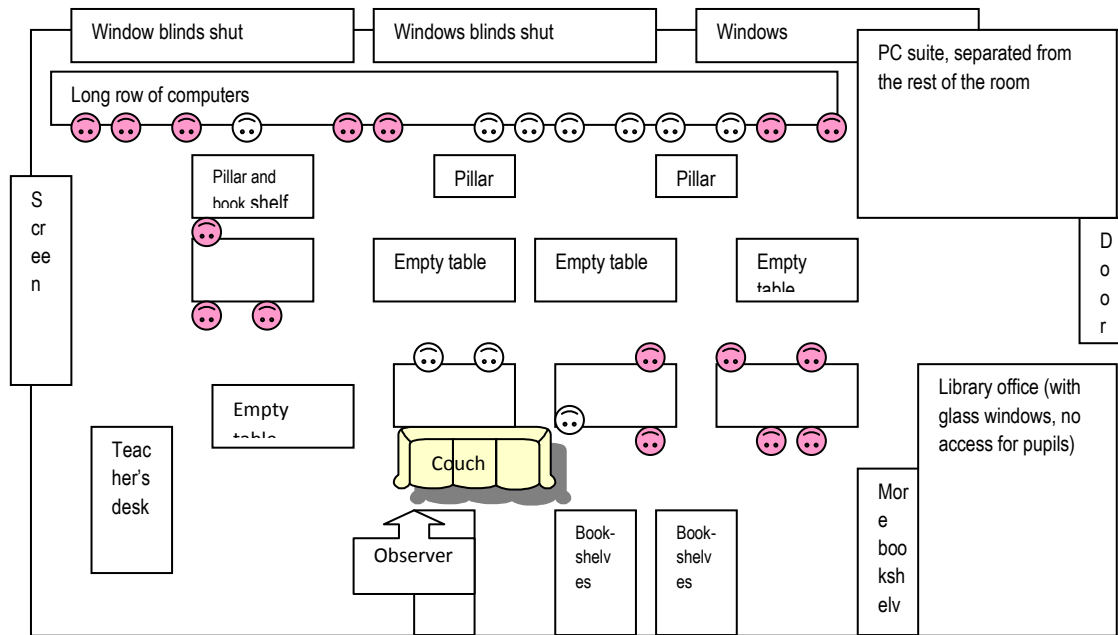


Figure 2. Classroom layout PSE lessons Elmhurst School – Chemistry classroom

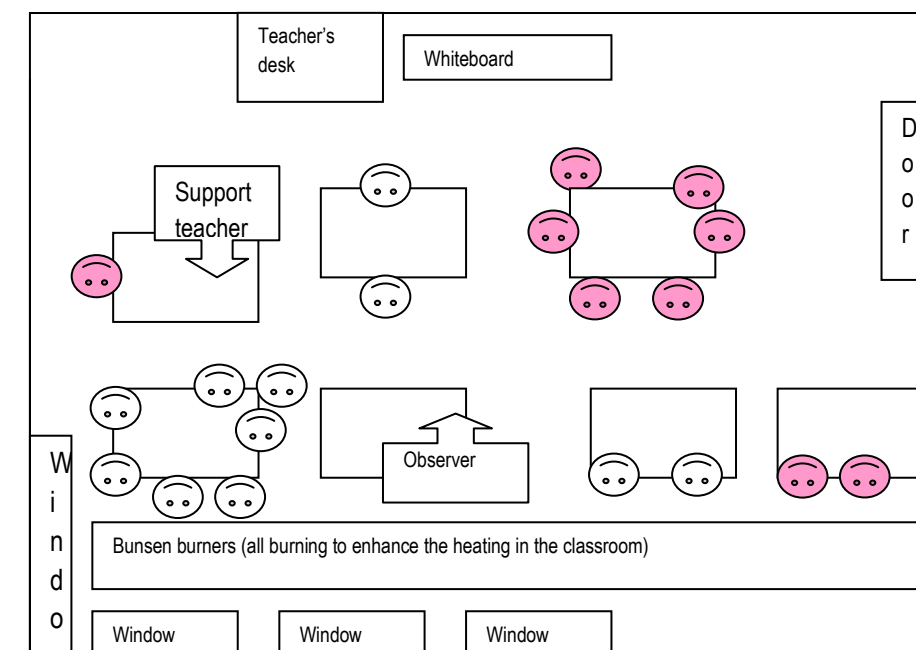


Figure 3. PSE classroom layout Oakwood School, Science and Technology classroom

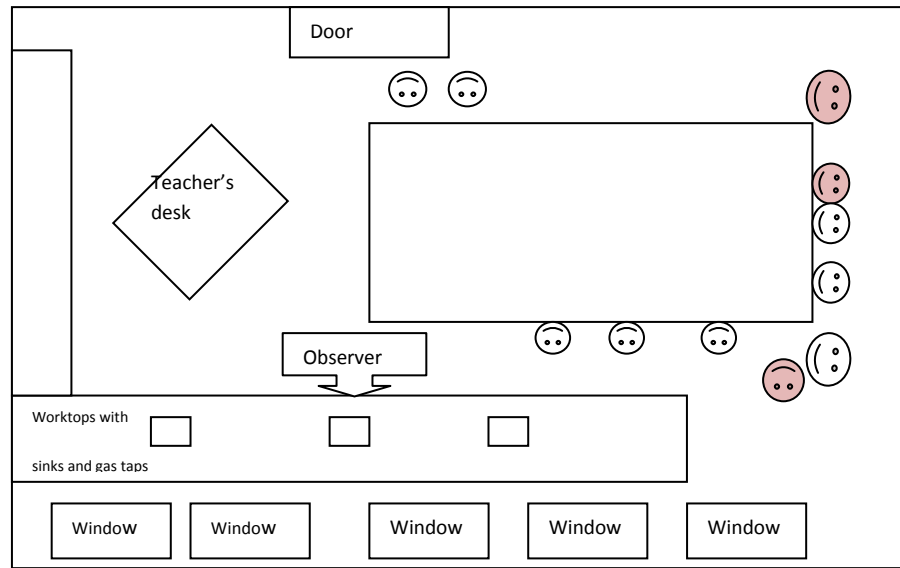
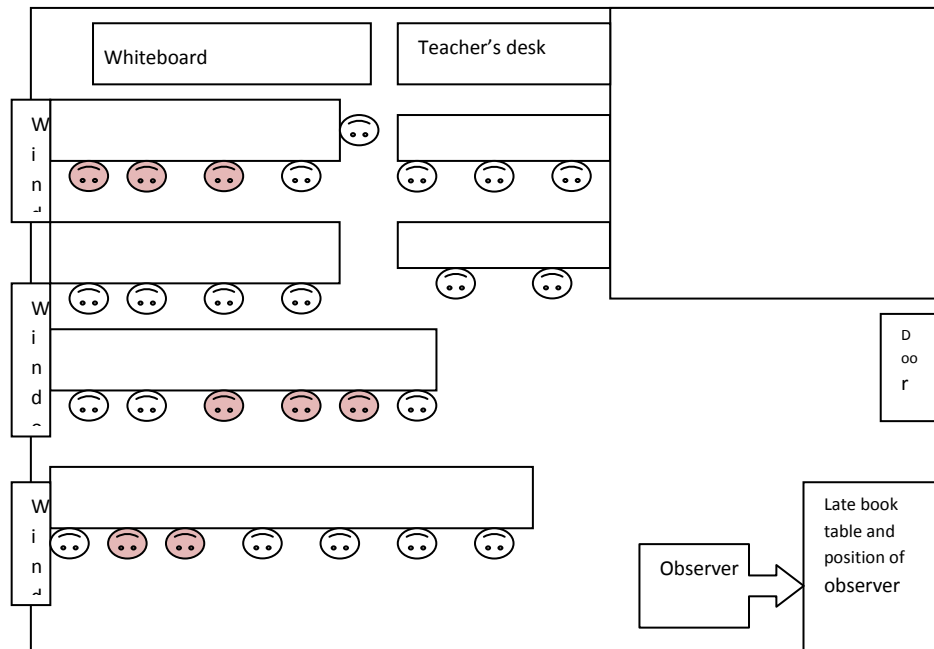


Figure 4. PSE lesson classroom layout St David's School: English classroom.



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