

**How comparable are stakeholder
perceptions on what constitutes a culture of
enquiry, exploration and innovation within
an individual primary school?**

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Abstract

Schools in Wales are going through a transformational phase, where new ways of working are being asked of the profession to support the implementation of a new curriculum. The research will look at the comparability of stakeholder perceptions within a primary school. Findings within the research suggests that this specific case study shows a strong correlation between stakeholders' perceptions and innovative practice. Further findings also suggested strong correlation between inquiry-based practice and stakeholders' perceptions on how this can improve an organisation as a whole.

Chapter 1: Introduction

1.1: Background and Rationale

Schools in Wales are going through a transformational phase, where new ways of working are being asked of the profession to support the implementation of a new curriculum. The changes were a result of the Welsh Government accepting recommendations from a commissioned review of curriculum and assessment arrangements in education in the '*Successful Futures*' report by Donaldson (2015). Subsequently, this resulted in the Curriculum and Assessment (Wales) Act 2021, which is in the process of being implemented. Developing schools as learning organisations is seen as a key model to enable successful implementation and this was set out by the Welsh Government (Welsh Government, 2018). The model given contains 7 dimensions that schools are suggested to embed in order to become a learning organisation (see *Figure 1* below) and is an adaptation of scholarly works such as Kools and Stoll (2016) and Marsick (2013).

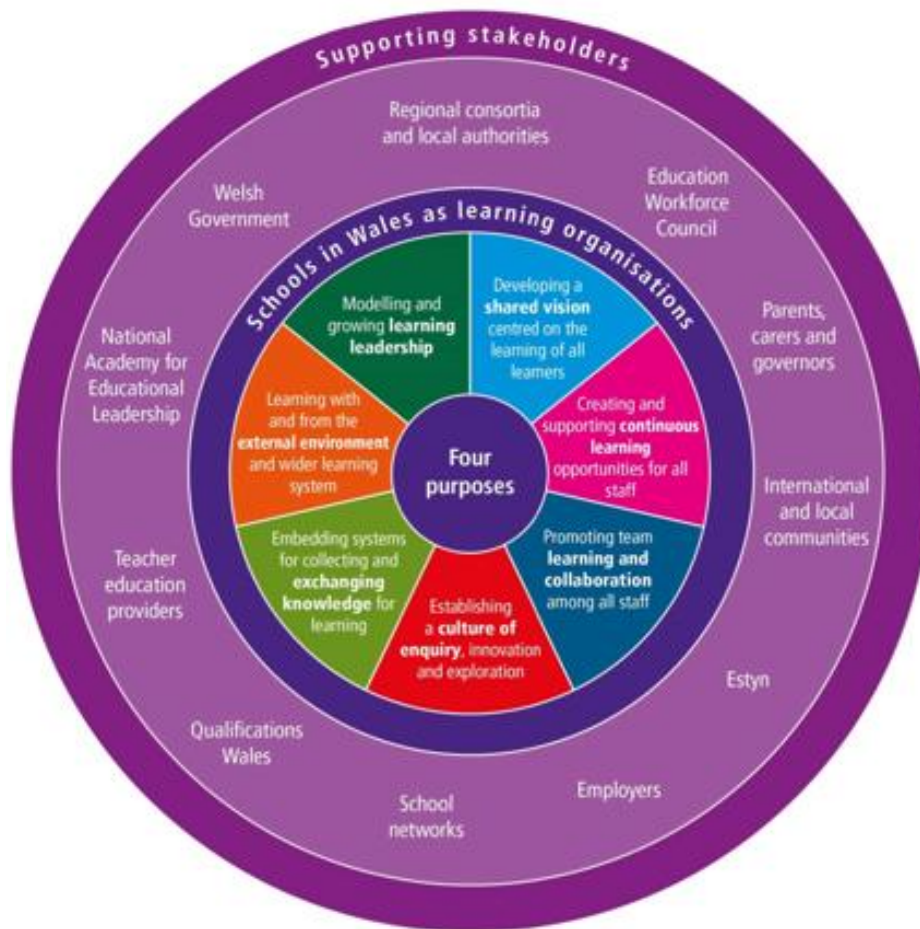


Figure 1 SLO Model (Welsh Government, 2018)

One of these dimensions is ‘establishing a culture of enquiry, innovation and exploration’ and according to an OECD (2018) report, this dimension is one of the most underdeveloped of the seven dimensions in Wales. With guidance from the Welsh Government suggesting that curriculum design should take an ‘iterative approach’ (Welsh Government, 2022a), which is designed and published by each individual school (Welsh Government, 2022b), it would seem paramount that an individual school is able to create and sustain its own culture of enquiry, innovation and exploration to support an ‘ongoing, cyclical process of engagement, design, planning, trialling, and evaluation’ (Welsh Government, 2022a).

As noted by the OECD (2016), more research into the school as a learning organisation as a whole needs to be conducted; therefore, this research project could have either examined the conceptual model as a whole or in smaller parts - both would have had merit and would contribute to the growing body of knowledge within this area. That said, and due to the scale of this research project, the latter (a smaller part) was more achievable given

the timeframe and resources available for this project. As a result, this research focused on the ‘establishing a culture of enquiry, innovation and exploration’ dimension. Naturally, the seven dimensions outlined in *Figure 1* above interlinked together; therefore, literature that examines a learning organisation as a whole, both in and out of the organisation’s sector, has also been considered as part of this research.

The overarching concept of a learning organisation is not a new one and despite some contemporary scholars suggesting that the literature is somewhat ‘disparate’ (OECD, 2016), it has gained popularity since the late 1980s and 1990s and is ‘generally agreed’ (OECD, 2016) that the creation of a learning organisation has positive implications. For example, potential benefits to student outcomes (e.g. Schechter and Mowafaq, 2012), benefits to operating procedures and routines (e.g. Schechter and Mowafaq, 2013) and its transferability between differing contexts (Park, 2008). In recent decades, schools in Wales have moved towards becoming individual organisations in their own right and as a result, new challenges are being asked of them. To become more autonomous, the education sector on many occasions has turned to the world of business to support its schools and leaders. The very concept of a ‘learning organisation’ (Garvin, 1993; Senge, 1990) or framed another way, ‘organisational learning’ (Huber, 1991) was developed within the private sector and its importance can be best summarised by Senge (1990): ‘in the long run, the only sustainable source of competitive edge is your organisation’s ability to learn faster than its competitors’. It could be argued, rightly or wrongly, that due to the potential funding implications of lower pupil numbers, an individual school needs to consider its ‘competitive edge’ (Senge, 1990) against other schools; however, at the very least, and as set out by the Welsh Government’s (2018) SLO Model, being a learning organisation will look to support schools to ‘learn faster’ (Senge, 1990) to improve the outcomes for its pupils (e.g. Schechter and Mowafaq, 2012).

It is important to note that there is also criticism of the concept. For example, Örtenblad (2004) comments upon its ‘vagueness’, but suggests this could be both positive and negative. As with all conceptual models, vagueness could be considered an important factor, as there can be much variance to the contextual situation it is applied to; therefore, being overly prescriptive would render a model redundant to certain contexts, or put another way by Field’s (2018) critique, learning organisations can be ‘conceptualised’ in so many different ways.

Furthermore, Field (2018) suggests there can be ‘inadequately’ in the ‘political aspects’ of shared learning when using the model. As previously noted, the OECD (2016) recommends more research into the school as a learning organisation, which needs to be conducted and would explain its comments around the ‘paucity of

empirical evidence'. It must be said that since the publishing of their report in 2016, more contemporary research examples have emerged (e.g. Kools et al., 2020a; Kools et al., 2020b; Sinnema and Stoll, 2022; Papazoglou et al., 2022; Barnard, 2022).

Although examining the learning organisations as a whole is beneficial to understanding the conceptual framework in which the dimension of 'establishing a culture of enquiry, innovation and exploration' operates under, it is also important to focus in on the literature around the before-mentioned dimension. Even though Kools and Stolls (2017) and OECD (2016) both articulate the 'elements' that are suggested to both enhance 'action processes' and 'learning culture outcomes' (see *Table 1* below for dimension being discussed), the behaviours of various stakeholders need to be analysed further in relation to creating and sustaining a culture of enquiry, innovation and exploration.

SLO Dimension	Elements
Establishing a culture of enquiry, innovation and exploration.	• Staff want and dare to experiment and innovate in their practice. • The school supports and recognises staff for taking initiative and risks. • Staff engage in forms of inquiry to investigate and extend their practice. • Inquiry is used to establish and maintain a rhythm of learning, change and innovation. • Staff have open minds towards doing things differently. • Problems and mistakes are seen as opportunities for learning. • Students are actively engaged in inquiry.

Table 1: Elements of SLO Dimension (Kools and Stolls, (2017); OECD, 2016)

As Buchanan and Huczynski (2019) suggests, our perceptions shape our actions due to the interplay between an organisational environment and our own perceptual world; therefore, an individual's perception of what constitutes a culture of enquiry, exploration and innovation within a primary school could be a considered key factor and influence their behaviours. Stakeholder perceptions could also have the potential to form unintended barriers and therefore influence a school's ability to become a more effective learning organisation. Ultimately,

this could cause counterintuitive implications when a school is looking to support an ‘ongoing, cyclical process of engagement, design, planning, trialling, and evaluation’ (2022a) as part of its curriculum transformation journey. As a result, the differential in, or comparability of, an individual’s perceptions was a key consideration in this research.

1.2: Aims and Objectives

Given the background discussed and the need for more research around schools as learning organisations, the aim of this project was to therefore contribute to the growing body of knowledge around learning organisations with a contextual-specific study (within a primary school). Taking note of both Örtengren’s (2004) comments around ‘vagueness’ and Field’s (2018) suggestion about the variance in conceptualisation; it is this researcher’s view that any research undertaken had to be contextually specific to offer more valid conclusions. The formation of the research questions brought together two main variables: the perception of various stakeholders and what constitutes a culture of enquiry, exploration and innovation. By comparing these, the researcher ultimately was looking to evaluate the impact of any potential variance in perceptions.

Noted below are four objectives that are intended to ‘operationalise’ (Saunders et al., 2019) the project’s research question: How comparable are stakeholder perceptions on what constitutes a culture of enquiry, exploration and innovation within an individual primary school? They give a structure of how the project is intended to be completed in order to achieve the aim of the research (Saunders et al., 2019). The research project will seek to:

- synthesise research findings on establishing a culture of enquiry, exploration and innovation from the organisation’s sector and wider sectors;
- analyse stakeholder perceptions on what constitutes a culture of enquiry, exploration and innovation within a primary school;
- evaluate the comparability of stakeholder perceptions;
- evaluate how the case study could be used across the organisation’s sector for future learning and improvement.

1.3: The Chosen Case

As indicated above, a specific case was chosen to provide an in-depth study of a phenomenon (Yin, 2018): a learning organisation in action. The single case chosen was an English-medium primary school in Wales. It is important to note that it is a place of work for the researcher; therefore, it would be classified as a 'local knowledge case' (Thomas, 2021, p. 111) and classified as a 'common case' within the organisation's field (Yin, 2018), as it was not chosen for example for being a 'key case', e.g. a good example, or an 'outlier case', e.g. show difference to the norm case (Thomas, 2021, pp. 111-112). The school would not be considered overly large in terms of its number of pupils, as it is below one-form entry (one class per year group) and currently employs, via the local authority, 24 staff (excluding auxiliary staff for food preparation and cleaning): 8 teachers, 15 teaching assistants and 1 admin assistant. All of the paid leadership team in their current roles have been in post under 6 months; however, nearly all of the other staff have been employed by the same by the organisation for more than two years.

Chapter 2: Literature Review

2.1: Background and Introduction

Developing schools as a learning organisation is seen as a key model to enabling the successful implementation of the Curriculum for Wales and has been set out by the Welsh Government (Welsh Government, 2018). As previously suggested, the concept is not new and has been developed and refined into its current model from the private sector under two descriptions, 'learning organisation' (Garvin, 1993; Senge, 1990) and 'organisational learning' (Huber, 1991), from the three seminal works. Coinciding with the rise of site-based management (SBM), the learning organisation was seen in education as a way of adapting to a changing and decentralised administration of schools (Donahoe, 1933; Wohlstetter, 1994; Fullan, 1995), where the first school-specific research emerges later that decade into the early 2000s (Leithwood, 1998; Ortenblad, 2001; Silins, 2002). In light of this, the research into the literature will begin with an examination of the school's learning organisation throughout its entirety alongside the school culture, before concentrating on the more particular aspects of 'establishing a culture of enquiry, innovation and exploration'. Focusing in on this dimension will form two main subcategories due to the themes evident within current literature: innovative and explorative cultures and an inquiry-based approach for improvement, which includes a discussion on leadership. It is worth noting that

there will inevitably be an overlap between some of the different parts of this literature review, as key concepts interact with each other quite fluidly in the dimension. From the literature review, a theoretical framework will be formed and presented to be used within this research.

2.2: School Culture and the Learning Organisation

Over recent decades, literature in regard to schools as learning organisations has continued to develop (e.g. Leithwood, 1998; Ortenblad, 2001; Silins, 2002; Senge et al., 2012; Marsick, 2013; Fullan, 2016; Kools and Stolls, 2016; OECD, 2016; OECD, 2018; Kools et al., 2020a; Kools et al., 2020b) and it could be argued that this is closely associated with the overall cultures within these schools (Bills et al., 2016; Kools et al., 2020b; Fullan, 2020). In order for a school and the people that work within it to become a more effective learning organisation, the context must change (Fullan, 2016), as a function of learning is to do the right thing in the setting you work in (Elmore, 2004). That said, and depending on whether a culture is seen as preferable within an individual school, changing it can be extremely difficult (Fullan, 2020), and leaders often make the mistake of trying to change a culture without being ‘clear’ or ‘specific’ (Schein, 2010, p. 312). Schools in Wales have become to be considered increasingly autonomous in recent years with the implementation of the Curriculum and Assessment (Wales) Act 2021 and it could be why a leader would be seeking to make cultural changes within their individual school to support the development of a bespoke curriculum, which is intended to develop iteratively. Ultimately, leaders, if they deem necessary, are being asked to preside over a continuous culture of change in an effort to support curriculum transformation through the school as a learning organisation model. This section examines the broader concepts found within all of the dimensions and, where appropriate, the overall ideas of a learning organisation and its relationship with culture.

Developing schools as learning organisations, as discussed in the introductory chapter, is seen as a key model to enable successful implementation and this was set out by the Welsh Government (Welsh Government, 2018). Although this research project will focus on the dimension of ‘establishing a culture of enquiry, innovation and exploration’, the other six dimensions, see *Figure 2* below, will be considered as part of this section to gain a broader understanding of the SLO model. In the other six dimensions, there are key concepts that are worth noting: ‘shared vision’, ‘continuous learning’, ‘collaboration’, ‘knowledge exchange’, ‘external environment’ and ‘leadership’. As previously established, fundamental concepts interact rather effortlessly inside the

dimensions; nevertheless, when analysing the other dimensions, it is evident that the fluidity extends between them.

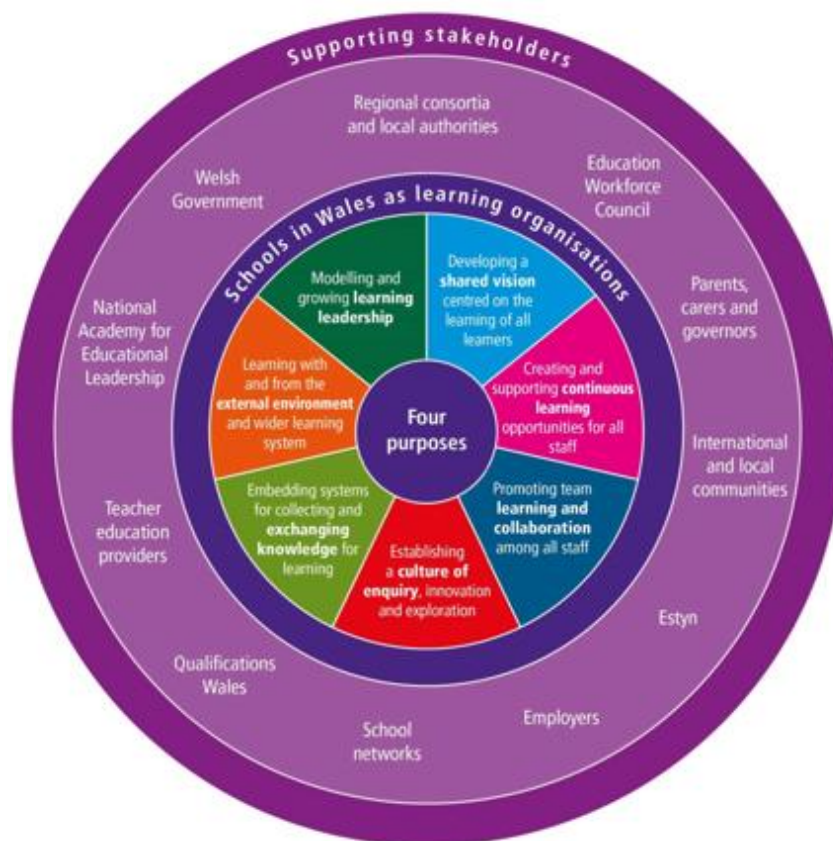


Figure 2 SLO Model (Welsh Government, 2018)

Firstly, and in order for the model to be successful, the development of a shared vision is advocated. According to the OECD (2018) having a shared and inclusive vision has two main purposes: to give a sense of direction and act as a motivating force for sustained action. Studies have also noted the importance of a shared vision in relation to pupil outcomes through improved teaching and learning (e.g. Silins and Mulford, 2004). The motivating force for sustained action seems particularly noteworthy in relation to the instability that a culture of enquiry, innovation and exploration could at times provide, as a shared belief between a group of individuals is more likely to see persistence to overcome difficulties (Schlechty, 2009). Literature from outside of the organisation's sector also notes the importance of a shared vision in relation to the determinants of innovative behaviours and actions (Dombrowski et al., 2007; Martins and Martins 2002); this will be discussed in the next section when the importance of a shared vision is once again considered.

Secondly, and due to the aspiration of the Curriculum for Wales set out in the Curriculum and Assessment (Wales) Act 2021, continuous learning and collaboration for all staff could be deemed essential, as an ‘iterative approach’ is advocated to support an ‘ongoing, cyclical process of engagement, design, planning, trialling, and evaluation’ (Welsh Government, 2022a). For the purpose of continuing to improve their curriculum offering, it would seem wise that schools and their staff look to develop through continuous learning. Apart from supporting curriculum design, Hattie’s (2023) research also notes there is a strong positive relationship between continuous learning through professional development and pupil outcomes by combining 27 meta-analyses. From a collaboration perspective, the importance of team learning across literature associated with schools as a learning organisation is very prominent (Middlewood et al., 2005; Schlechty, 2009; Senge et al., 2012; Schechter and Mowafaq, 2013; Marsick, 2013). This trend would seem to suggest the importance placed upon collaboration over recent decades as school systems have become more knowledgeable of how to shift between cultures of individualism to cultures of collaboration (Hargreaves and O’Connor, 2018) for the purpose of better fulfilling the more modern requirements of schooling. In Wales, this is no different, as collegial working is very much needed to design and deliver a decentralised curriculum, which may vary from school to school as it looks to deliver a suitable curriculum for its pupils.

Thirdly, in order to better fulfil the increasingly modern demands of education, mechanisms for knowledge development and exchange must be in place for the SLO model to be employed effectively (OECD, 2016). This could be from the use of data to support decisions (Katz and Dack, 2013; Mandinach and Gummer, 2013), to the use of formal and informal conversations to build and exchange knowledge. From a conversation perspective and as Nonaka and Toyama (2000) suggest, knowledge takes social processing through interactions to put it into context and time needs to be given to mediate information to become meaningful knowledge. Conversations, sometimes termed as ‘professional dialogue’, must therefore happen to allow information to be contextualised; they can take many forms and are not always devoid of conflict (Gill, 2018) with the aim to move learning forward. From a data perspective, using data effectively could support schools from both an inquiry-based working approach (Amels et al. 2020; Amels et al. 2023) and support a process of innovation (Amels et al. 2020; Uiterwijk-Luijk and Krüger, 2015), which will both be discussed in the following sections below.

Fourthly, and due to an ever-changing external environment, the SLO model (Welsh Government, 2018) looks to encourage individual schools to be more aware of external factors, as some schools are still removed from the

idea of a learning organisation despite external pressures (OECD, 2016). It is suggested that schools must learn with and from the external environment (OECD, 2016), as they are part of a responsive, open system. Schools do not exist in a vacuum and need to be sensitive to social, political and economic conditions (Brandt, 2003) found externally. To encourage innovative practices and significant change, an organization's understanding of the external environment should therefore aim to increase its expertise.

The final key concept from the other six dimensions is leadership. The importance of this could be viewed from multiple perspectives; however, strategic leadership and distributed leadership would be most applicable to the current discussion. From a strategic perspective, an effective learning organisation must have the operational systems in place to allow learning capacity to build through core competencies (OECD, 2016). It could be argued that these operational systems are important, as they help to contextualise the SLO model within a given organisation, which could help to mitigate the critique around the 'vagueness' (Örtenblad, 2004) of the learning organisation model. From a distributed leadership perspective, the whole team are assumed to feature in some leadership capacity (Spillane, 2007) with the goal for individuals to take ownership in change initiatives. Both Cranson (2016) and Spillane (2012) note how important it is for a leadership strategy to prompt teachers to take ownership of change initiatives and as a result, improve the whole school's capacity for improvement. The advocacy of distributed leadership has the potential, according to some critiques (Driver, 2002), to create an imbalance between managerial and employee control (OECD, 2016); therefore, questions around 'power distribution', the 'influence of employees' and 'control mechanisms' could be asked (Driver, 2002).

2.3: Innovative and Explorative Cultures

When considering innovation, it could be argued historically from a school perspective that lots of pressure has been put on them to become more innovative in recent decades due to the decentralisation of governance. This is not to say that schools in Wales and the wider world are moving towards complete autonomy, as there are still noted tensions between centralised and the decentralised governance (Greany and Waterhouse, 2017, p. 111). As a result of the capacity of both individuals and organisations, innovation has often only been recognised on the surface level due to the capacity of both individuals and organisations (Fullan, 2016). It is necessary to comprehend what innovation is and what the process involves in order to increase the capacity of both individuals and businesses (Tidd and Bessant, 2018, pp. 16-17). Tidd and Bessant (2018) suggest that some

models could be quite complex and propose a simpler model of innovation that can be summarised in four words: ‘search’, ‘select’, ‘implement’ and ‘capture’ (see *Figure 3* below). The model proposed by Tidd and Bessant (2018) is a reminder that the process of innovation is far more than just thinking innovatively and requires broader considerations in terms innovative behaviours, operational structures, leadership strategies on both an individual and collective level.

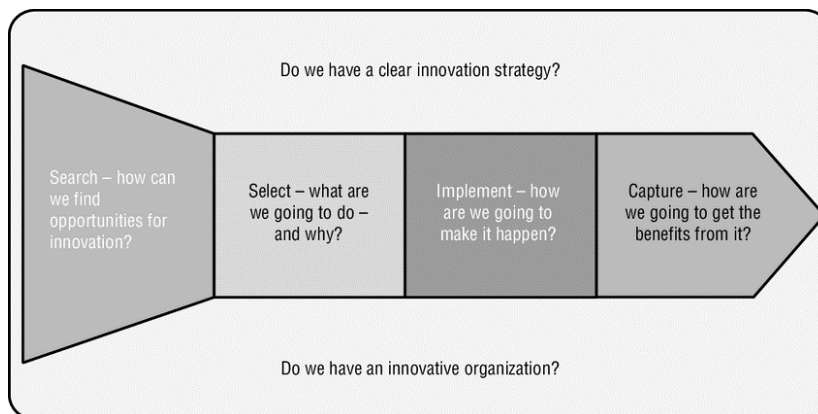


Figure 3 A Model of the Innovative Process entails. (Tidd and Bessant, 2018).

Regarding other ideas within the dimension of ‘establishing a culture of enquiry, innovation, and exploration,’ innovation is not stand-alone; rather, it could be argued to be somewhat overarching, since an innovative process requires an individual or group to both ask probing questions and be exploratory when looking for possible solutions. As Amabile and Collins (2009) suggest, organisational innovation is also driven by creativity, which could also be considered as part of the model set out in *Figure 3* through the innovative process. This section will therefore take innovation and the process as an overarching concept in which enquiry, exploration, creativity and change, to some degree, will operate under.

It is also important to consider if innovation is a process, what is the intended outcome. Tidd and Bessant (2018, p. 20-23) note the importance of considering the output of any innovative process and suggest four broad categories: ‘product innovation’, ‘process innovation’, ‘position innovation’ and ‘paradigm innovation’. For clarity, definitions of these four broad categories have been summarised in *Table 2* below. Taking the example of the Curriculum for Wales set out in the Curriculum and Assessment (Wales) Act 2020 in relation to the ‘4Ps’ described in *Table 2*, curriculum reform could be considered under multiple definitions due to its complexity.

Product Innovation	Process Innovation	Position Innovation	Paradigm Innovation
Definition	Definition	Definition	Definition
Changes in the things (product/services) that an organisation offers.	Changes in the ways in which they are created and delivered.	Changes in the context in which the products/services are introduced.	Changes in the underlying mental models that frame what the organisation does.

Table 2: 4Ps Definitions. Tidd and Bessant (2018)

Tidd and Bessant's (2018) 4Ps provides a framework when considering the output of an innovative process; however, as Dawson and Andriopoulos (2014) suggest, there are a number of levels of innovation. This is worth considering to gain a broader understanding of an innovative process and could be considered as part of an incremental scale: ranging incremental innovations, to modular innovations, to radical innovations. From a school's perspective, innovations are more likely to be incremental innovations, as they are generally based around existing organisational capabilities; however, if a school was attempting to change its overall culture through adopting the SLO model, these types of innovations could be considered more radical, as it could be argued that substantial internal changes would need to be made with an organisation (Dawson and Andriopoulos, 2014).

As part of the innovative process, literature must also be considered from the perspective of innovative determinants. From analysing relevant literature, 10 determinants that form part of the innovative process have been noted: 'communication', 'collaboration', 'autonomy', 'risk taking', 'incentives', 'resources', 'leadership', 'decentralised decision making', 'vision and values' and 'external influences'. These will form part of the conceptual framework that is discussed at the end of this chapter due to the perceived importance of initiating innovative work behaviour (Chan, 2016).

Firstly, from reviewing literature, the determinant of stakeholder autonomy and its noted importance is evidence across a range of literature from both within and beyond the organisation's sector (De Jong and Kemp, 2003; Dombrowski et al., 2007; OECD, 2016; OECD, 2018; Hughes and Lewis, 2020). Autonomy could be viewed

from the standpoint of both an individual and the organisation as a whole and needs to be considered accordingly. If the conditions within the organisation allow for ‘appropriate’ levels of autonomy and as noted in a wide range of literature (De Jong and Kemp, 2003; Dombrowski et al., 2007; OECD, 2016; OECD, 2018; Hughes and Lewis, 2020), this should support an innovative and explorative culture.

Secondly, from reviewing literature, communication has also been shown to be evident in literature and has previously been discussed in other sections of the literature review (Dombrowski et al. , 2007; De Jong and Kemp, 2003; Wang et al. , 2007; Martins, and Martins, 2002). If collegial working is to drive self-improvement, clear communication between stakeholders would naturally be key to enable this to happen.

Thirdly, collaboration has also shown to be an important determinant in the literature reviewed (Dombrowski et al., 2007; Kalyani, 2011; OECD, 2016; OECD, 2018). This links to one of the six dimensions, ‘promoting team learning and collaboration amongst staff’, which is set out by the Welsh Government (Welsh Government, 2018) in their SLO model.

Fourthly, Wang et al. (2007) and OECD (2016) have noted the importance of taking risks as part of an innovative culture. As noted by (Beghetto, 2018), the key to the iterative nature of creativity and learning is risk-taking, which is demonstrated by a desire to attempt new things and face the possibility of failure. In the majority of conceptualisations of creativity, taking risks is crucial (Dewett, 2007) and instead of engaging in risky or harmful behaviour, creative risk-taking involves an openness to new experiences and a willingness to learn from setbacks and obstacles (Balkin, 1990). In a time of unparalleled change, it is even more critical to promote risk-taking as a pivotal principle (Page & Thorsteinsson, 2017) and in order to deliver upon the SLO model set out by the Welsh Government (Welsh Government, 2018), taking risks could be seen as an important determinant.

Fifthly, Dombrowski et al. (2007) and Ramamoorthy (2005) have also discussed monetary incentives as part of innovative behaviours. In the context of education, this may have been traditionally incentivised through performance related pay; however, ‘performance management’ is changing for schools in Wales and there is a move towards enquiry-based research, which would align with the SLO model (Welsh Government, 2018), rather than pay being awarded by predetermined targets. Therefore, ‘monetary incentives’ would not necessarily

be linked to pay progression as they would traditionally; however, it could still be the case that through adopting an ‘innovative and explorative’ approach, promotion could still offer a monetary incentive.

Moreover, further determinants for innovative behaviour have been identified by the following literature.

Firstly, Wang et al. (2007) and Martins and Martins (2002) have both noted the importance of resources as part of the innovative process. Secondly, the importance of leadership is evident across various literature (Dombrowski et al., 2007; De Jong and Kemp, 2003; OECD, 2016; OECD, 2018). Thirdly, another innovative determinant identified through literature is decentralised decision making (Wang et al., 2007). Fourthly, Dombrowski et al. (2007), Martins and Martins (2002) and Senge (2012) all note the importance of having a shared vision across an organisation. Finally, it is important to consider outside influences as part of the innovative process, as an organisation needs to be aware of the wider world (De Jong and Kemp, 2003).

2.4: Inquiry-based Working

Although inquiry will inevitably form part of the process of innovation, it will be discussed as an individual concept in this section, as it could be argued it is a way of driving innovative and explorative behaviours, and as a result, the processes. From reviewing the literature on adopting an inquiry-based approach to working, a close association with distributed leadership has been noted (Cranston, 2016; Amels et al. 2020; Amels et al. 2023; Uiterwijk-Luijk et al., 2017) and will therefore form part of this discussion.

When considering inquiry-based working, the literature around these areas notes the importance of different concepts. Studies into inquiry-based working note the importance and close association of the use of data (Amels et al. 2020; Amels et al. 2023; Uiterwijk-Luijk et al., 2017). This is not to say inquiry-based working with a focus on data is without critique and some scholars have suggested that the increased use of data can lead to a culture of accountability (Amels et al., 2020). Moreover, this literature also suggests that stakeholders need to show curiosity, the willingness to ask questions and be open to deep learning.

From a distributed leadership perspective, the work of Amels et al., (2020), Amels et al. (2023) and Uiterwijk-Luijk et al., (2017), suggests a strong correlation between inquiry-based working and distributed leadership. That said, distributed leadership is not without criticism. For example, Hartley (2010) suggests that distributed leadership is little more than emancipatory rhetoric. Once again, these key concepts will be used to produce a conceptual framework to support the research.

2.5: Framework

As a result of the preceding literature analysis, a conceptual framework has been constructed to enable the researcher to more effectively investigate the comparability of stakeholders' perspectives of what defines a culture of inquiry, exploration, and innovation inside of a specific primary school. Whilst this has been discussed at length throughout the above chapter, the table below summarises the scholarly input into the framework.

Conceptual Framework Containing Key Concepts for Innovative, Explorative and Enquiry-based Cultures		
School Culture and the Learning Organisation	Innovative and Explorative Cultures	Inquiry-based Working
Shared vision	Autonomy	Data usage
Continuous learning	Communication	Curiosity
Collaboration	Collaboration	Willingness to question
Knowledge exchange	Risk taking	Openness to deep learning
External environment	Incentives	Distributed leadership
Leadership	Resources	
	Leadership	
	Decentralised decisions	
	Vision and Values	

Table 3: Conceptual Framework Containing Key Concepts for Innovative, Explorative and Enquiry-based Cultures

Chapter 3: Methodology

3.1: Overall Research Design

Whilst the research project needs to clearly articulate how data has been collected and analysed when communicating its design, Saunders et al. (2019) note that the importance of taking an approach which considers many different layers of research design set out in their conceptual model titled the ‘research onion’ (see *Figure 4 Research Onion* below). The researcher adopted this six-layer approach as a framework when deciding upon the design of the research project set out in this section, as following this framework, the researcher was more able to clearly show their personal ‘reflexivity’ in relation to how an individual’s philosophical position can impact on research that has been undertaken (Alvesson and Skoldberg, 2009).

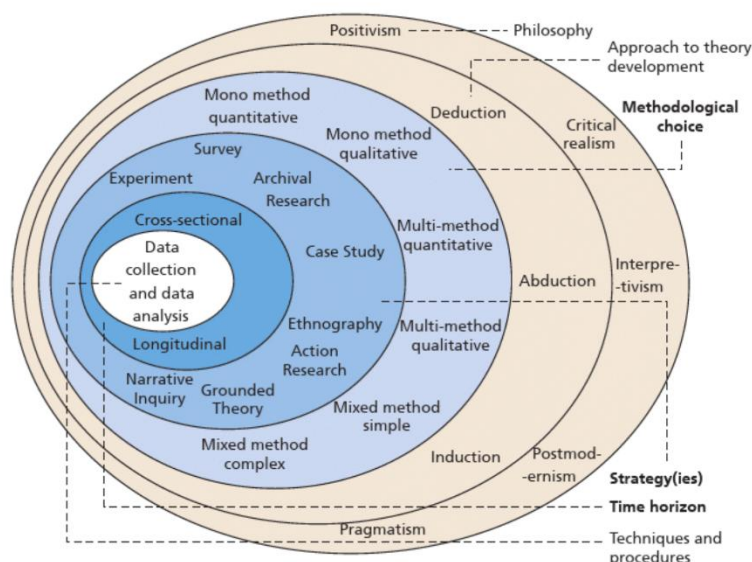


Figure 4 Research Onion (Saunders et al., 2019)

Philosophical ideas can remain largely hidden in research (Slife and Williams, 1995, cited in Creswell and Creswell, 2018, p.5), but as Creswell and Creswell (2018) suggest, they still need to be made explicitly clear due to their influence. For the research project, the researcher adopted a research philosophy of pragmatism, as the researcher sought to reject the philosophical dualism between objectivity and subjectivity (Biesta, 2010) in the form of ‘multi-paradigmatic research’ (Saunders et al., 2019). This allowed the researcher to overcome the

forced dichotomies of postpositivism and constructivism (Creswell and Clark, 2018). All of which will become more apparent as the different layers of the research onion are discussed in the following sections.

When considering how theory would be developed, the researcher believed that an abductive approach would be most appropriate, as theory was used to inform a conceptual framework for data collection and then the incorporation of existing theory was used to support data analysis. The use of adductive reasoning was therefore used to answer an observation or puzzle identified by the researcher and was switched back and forth between the social world and literature (Bryman et al., 2021). Termed another way, using a process of dialectical shuttling (Atkinson et al., 2003). Furthermore, it can also be argued that pure deduction or induction are difficult to achieve in this form of research (Saunders et al., 2019) and even if the research project had a strong emphasis on an approach to theory development, abduction would still present in some capacity. From an epistemological perspective, this approach to theory development looked to add to a growing body of knowledge and ultimately sought to inform future practice through more successful actions and/or practical solutions when the case study was evaluated; therefore, it should be considered pragmatist from a philosophical standpoint.

As Clough and Nutbrown (2012) suggest, a methodological choice can sometimes be seen as a ‘practical’ consideration; however, decisions can carry ‘very deep’ and often ‘unarticulated implications’. The researcher was mindful of this; therefore, justifications made before the research took place are noted below. The methodological choice for the project was a mixed-method design, as both qualitative and quantitative data were used to provide a more comprehensive analysis of the research problem (Creswell and Creswell, 2018); therefore, triangulation occurred. It could also be argued that the use of this methodological choice for the research project enabled more ‘completeness’, as using different methods allowed the researcher to ‘gain a more complete empirical description’ (Bryman et al, 2021, p.558) of the same phenomenon. Moreover, this methodological choice of mixed methods allowed the researcher to use more than one strategy; this is discussed in more detail below. From an abductive perspective, the methodological choice was based on answering the research problem and not ‘from a position of epistemological purity’ (Gray, 2022, p.209): the integration of methods was first and foremost sought to improve the quality of the research; the research philosophy, along with ontological and epistemological assumptions, whilst still important, was a secondary decision.

To validate this methodological decision, a single case study was employed to perform a thorough investigation of a typical case (Yin, 2018). The researcher specifically chose the strategy of a single embedded case study for

multiple reasons. Firstly, the research was not seeking to control the variables or behaviour and focused on a contemporary event (Yin, 2018). Secondly, it was aiming to conduct an in-depth inquiry of a typical case (Yin, 2018) for the purpose of understanding the relationship (Thomas, 2021) between a stakeholders' perceptions and a process, albeit some of this might be deemed as 'tacit knowledge' (Polanyi, 2009), advocated by the organisation. Thirdly, the 'common' case (Yin, 2018) was being designed to offer an illustrative contribution (Yin, 2018; Thomas, 2021) to knowledge. Fourthly, the methodological choice looked to support the overall research design using Yin's (2018, p. 43) 'four design tests', which can be summarised as 'construct validity', 'internal validity', 'external validity' and 'reliability'. For clarity, and as discussed in the 'Data Collection and Analysis' section, the survey strategy formed part of the overarching case study design strategy.

Using this strategy was certainly not without its limitations from both a broader epistemological or ontological perspective and therefore it is important the researcher articulated their personal 'reflexivity' (Alvesson and Sköldberg, 2009) in relation to the strategy chosen. Epistemologically, the research traded off the ability to make broader generalisations (Thomas, 2023) due to the case being an individualised event. Ontologically, the researcher had a role within the organisation, which could have both influenced the way 'research objects' were seen (Saunders et al., 2019) and the way individuals interacted with the researcher as a result of a senior role within the organisation. It is also worth noting that strategies were considered such as interpretative phenomenological analysis (IPA). Whilst IPA's focus on a person and their experience (Thomas, 2023) is noteworthy, using this strategy would not have taken into account wider influences of the organisation.

Due to the resources available and time limitations of the project, a cross-sectional time horizon was a logical choice for the project. Although an exploratory sequential mixed methods design was considered for the overall research project, which would have used the qualitative data from in-depth open-ended interviews to inform the design of a quantitative survey, the researcher decided against this. However, the researcher decided on using three phases: an initial phase to analyse the organisation's documentation to support the design of the concurrent second and third phase, where both interviews and a survey were used to collect data. The analysis of the documentation was combined with the theory, which was derived from the literature review, to support the design of the interviews and survey; this allowed the researcher to gain more of a context-specific understanding of the case. This meant that the research was both sequential and concurrent in its design. Phase 1 being exploratory sequential and phase 2 and phase 3 convergent. The convergence of evidence in phase 2 and 3 could

be argued to be more appropriate, as it ultimately strengthened the construct validity of the case study as the multiple sources ‘essentially provided multiple measures of the same phenomenon’ (Yin, 2018).

Chapter 4: Data Collection and Analysis Design

Whilst the previous section outlined most of the layers of the ‘research onion’ (Saunders et. al, 2019), this section will seek to explain the final layer. It will include the specific methods in more depth that were used for the data collection, the justification of the sampling used and outline how the data collected was analysed. Due to the overarching strategy being a case study, Yin’s (2018, p. 126) ‘Four Principles of Data Collection’ was reviewed in order to ‘maximise’ data collections. By considering the principles, he suggests that problems with construct validity and reliability can be helped. During the discussion on data analysis, Yin’s (2018) ‘Four General Strategies’ and ‘Five Analytic Techniques’ would be considered as part of the noted justifications.

As noted previously, the research project used a mixed methods approach, the methods used were in the form of short case study interviews and document analysis, which collected qualitative data, and a survey, which collected quantitative data. Whilst a case study strategy is sometimes considered more of a mono or multi method from a methodological perspective, where methods used focus on qualitative data, Yin (2018) notes how a quantitative method to data collection can be used as part of an ‘embedded case study design’; this was in the form of a survey being used. The use of multiple sources of evidence, three methods in this case, adheres to Yin’s (2018) first principle of data collection: the use of multiple sources of evidence. Whilst the researcher considered that it could be argued that the comparability of perceptions could be researched from a purely quantitative perspective in the form of a survey, the phenomenon being researched, in the view of the researcher, was complex enough to warrant the use of interviews to supplement the understanding of the case in more detail.

As the research project used a mixed methods approach with an overarching strategy of a case study, sampling needed to be considered on three levels: the choice of the ‘case’, the sampling used across the overall case study and the sampling used for the individual methods. In terms of deciding upon the single case to be researched, the organisation, a primary school in this instance, first and foremost is a place of work for the researcher; therefore, it would be classified as a ‘local knowledge case’ (Thomas, 2021, p. 111) and classified as a ‘common case’ within the organisation’s field (Yin, 2018). When considering sampling used across the overall case study, Gray

(2022) suggests 4 designs a researcher may take regarding mixed methods sampling: ‘identical, parallel, nested and multilevel’. Of the 4 designs, a ‘nested’ design (Thomas, 2021; Gray, 2022) or ‘embedded’ (Yin, 2018) was most appropriate, as sample members used in one phase of the study also represented a sub-set (Gray, 2022): a larger sample for the survey and a smaller sub-set for the interviews. Not all groups of stakeholders associated with the school formed part of the sample, as their actions and beliefs were either not directly linked or could only be partially linked to creating a culture of enquiry, exploration and innovation. For example, ancillary workers such as catering and cleaning staff, parents/guardians, members of the governing body and the pupils were not represented. The sample therefore included paid members of teaching and support staff; this is another example of how the case study was ‘nested’, as the organisation as a whole had significance, but not all stakeholders were represented.

In terms of sampling for the individual methods, different approaches were taken, as in general, qualitative methods were planned to achieve depth of understanding whilst quantitative methods were planned to achieve breadth of understanding (Patton, 2015); therefore, they required different considerations regarding sampling. When deciding upon the sample of participants for the interview, the researcher decided to use the technique of purposeful sampling. As suggested by Palinkas et al. (2013), there are many purposeful sampling designs, which range in their rationale from selecting extreme or deviant cases, to reducing variations to identify common patterns. The objective behind the sampling strategy used on this occasion could be described more precisely as ‘criterion-i’ (Palinkas et al. 2013) sampling: cases are selected to some predetermined criterion of importance (Palinkas et al. 2013; Bryman et al., 2021; Gray, 2022). The predetermined criterion of importance being the role and therefore seniority level within the organisation. This saw one senior leader, two teachers and four support staff interviewed, which, due to the number of staff in the school, saw 25% of the overall sample represented. Ultimately, the sampling strived towards theoretical saturation with the aim being that no new ‘theoretical insights’ or ‘dimensions for theoretical categories’ could be reached (Bryman et al., 2021, p. 381). This could be considered a limitation of this research project if the sampling from the interviews, generating qualitative data, was considered in isolation, as an iterative approach to sampling recommended by such scholars as Miles and Huberman (1994) was not possible due to time and resource limitations.

Due to the research taking a mixed-method approach and the convergence of data in phase 2 and phase 3, it was important to decide why sampling from the survey, generating quantitative data, supported and ‘complemented’

(Palinkas et al. 2013) the qualitative data generated from the interviews. The limitations of a narrowly focused purposeful sampling strategy could be complemented by a broader focused probability sample (Palinkas et al. 2013); therefore, the researcher used a form of probability sampling, ‘stratified sampling’ (Hall, 2020; Bryman et al., 2021; Gray, 2022), when considering the participants invited to complete the online survey. The strata or categories used were the same as the predetermined criterion for qualitative sampling for the interviews: the seniority level within the organisation, which was broken into senior leaders, teachers and support staff. Due to each of these strata having a variance in their populations, ‘proportional representation’ (Bryman et al., 2021, p. 172) was used. In the case of this research project, the participants from the interviews were joined with a sampling fraction of a 1/2 from the remaining population of the strata; this is summarised in *Table 4* below. For clarity, as the overall case study design could be described as ‘nested’ (Thomas, 2021; Gray, 2022) or ‘embedded’ (Yin, 2018), where a larger sample for the survey could form part of a smaller sub-set for the interviews, the researcher chose to ask all participants from the interviews to take part in the survey with the remaining participants being selected through probability sampling. This ensured that there was a convergence in the sources of evidence in terms of some of the participants being involved in both the interviews and survey. In terms of justifying the overall sampling in another yet related way, it could be argued that by using both purposeful and probability sampling, both the internal and external validity was increased because multiple methods focussed on more than just a broad view through convergence.

Category / Strata Name	Total Number of Population in Category / Strata	Number of Participants for Interviews	Number of Participants for Survey
Senior Leaders	3*	1	2
Teachers	4	2	3
Support Staff	14	4	9

Table 4: Sampling Information. * Researcher forms part of this population.

Having discussed the samples used for the survey and the interviews, it is also important to discuss how the documents for the documentation analysis were selected. In general, there is more information than ever in relation to organisations due to accessibility and benefits the internet brings. It must be noted that an abundance of material certainly has the potential to overload a researcher from a time management perspective; this needed to be considered from a sampling perspective. In order to determine which documentation has "apparent centrality" to an inquiry, Yin (2018, p. 117) suggests "triaging" the resources. This way, more effort can be devoted to the central information after the documentation has been chosen. While Yin (2018) acknowledges that such a technique would not be optimal it was critical that the case study progressed as a whole and that time was allocated adequately.

Whilst it is important to note how the researcher collected data through various methods, how the subsequent data is stored needs to be discussed. As noted at the start of this section, Yin (2018) suggests 'Four General Strategies' in relation to data analysis. Whilst all should have been considered noteworthy in a broader sense, his two strategies of creating a case study database and maintaining a chain of evidence more specific to the storage of data. The purpose of creating a case study database and ensuring chains of evidence were maintained was important for several reasons: it enabled the researcher to preserve collected data in its retrieved form; it enabled a complete compilation of the data from the entire case study, which ultimately looked to improve the reliability of the entire case study; it enabled chains of evidence to be followed from questions asked to the case study's findings, which if maintained, looked to increase the construct validity of the information (Yin, 2018); and in

the future, it enables a critical reader to inspect raw data, which in some case studies is not possible, as raw data can be embedded in the case study report mainly in narrative form.

It is important to understand how the data collection phase related and supported the analytical stage of the research project. A case study is not defined by a specific approach or method and is more of a ‘container’ for a situation (Thomas, 2021); therefore, the analytical stage is not prescribed and could have been designed in a multitude of ways providing justifications were made. As discussed previously, Yin’s (2018) ‘Five Analytic Techniques’ were considered in relation to how data collected from the above methods were then analysed. Out of the five techniques and not applicable to this research project is the use of analytical techniques such as ‘time-series analysis’, ‘logic models’ and ‘cross-case synthesis’, as the time horizon decided upon was cross sectional and multiple case studies was not part of the overall research design. That said, ‘pattern matching’ and ‘explanation building’ was considered in terms of their applicability to the research project. It must be noted that these analytical techniques were considered very broad and will be discussed alongside more specific analytical procedures.

First and foremost, the analysis of the data from documentation is to be considered, as phase 1 is first and separate from the convergence of data in phase 2 and phase 3. The overall purpose of the documentation analysis was to support the design of both the survey and questions for the short case study interviews by creating a theoretical framework which considered wider theory from the literature review and contextual-specific nuances of the theory happening within the organisation. As the analysis required a much more mechanical process (Dawson, 2019) looking for specific content in the organisation’s documentation, NVivo software was used to perform a content analysis using coded content set by the researcher derived from theory. From an analytical technique’s perspective, analysing data in this way sought to both build explanations and spot patterns within the organisation documentation to support the subsequent phases.

Arguably at the other end of the ‘qualitative data continuum’ (Dawson, 2019), thematic analysis was used to analyse the data from the short case study interviews. There can be much variability in thematic analysis approaches; therefore, it is important to be clear how thematic analysis in the case of this research was used and as a result, a change in its placing on the ‘qualitative data continuum’ (Dawson, 2019) may need to be noted. Braun and Clarke (2022) and Clarke (2017) acknowledge this variability and use their ‘tripartite typology’ to bring some classification to the different forms of thematic analysis in three broad categories: ‘reflexive TA’,

‘coding reliability’ and ‘codebook TA’. Using their ‘tripartite typology’, the approach to thematic analysis used by this research project could be considered under the category of ‘codebook TA’; however, it is worth readers of this section noting other names can often be associated with this categorisation: matrix analysis (Miles and Huberman, 1994), framework analysis (Ritchie and Spencer, 1994) and template analysis (King, 2012; King and Brooks, 2016). Of the three, template analysis (King, 2012; King and Brooks, 2016) would best describe the approach used for a number of reasons set out below and as a result, move the chosen approach away from the periphery of the ‘qualitative data continuum’ (Dawson, 2019) that thematic analysis can be associated with.

The researcher took a ‘middle ground’ approach (King, 2012) between the outlying opposites of ‘reflexive TA’ and ‘coding reliability’ (Braun and Clarke, 2022; Clarke, 2017). This ‘middle ground’ (King, 2012) provided a ‘structured-but-flexible’ approach (Braun and Clarke, 2022, p. 244) that was more appropriate to the research design of this project. Firstly, the approach combined both an inductive and deductive process: it allowed anticipated themes from literature or interview questions to be used in a priori codes/themes (Braun and Clarke, 2022; Brooks et al., 2015; Clarke, 2017) and also facilitated opportunities to refine codes and develop themes as the analytical process progressed. This was preferential, as using theory to support and organise the analysis was planned to be a key influence in this project. It is also an example of how one of Yin’s (2018) ‘Four General Strategies’ can be applied: theoretical propositions have guided the case study. Through working in this way, another example abductive reasoning is notable because the process of dialectical shuttling (Atkinson et al., 2003) was used when the researcher was switching back and forth between the social world and literature (Clark et al., 2021). Secondly, the approach to theme development sat somewhere on the spectrum between an analytic input and output (Braun and Clarke, 2022). This had a particular relevance to how a theme was identified and developed, as if a theme is considered just an analytical input, the themes produced from an analysis could be classified more as domain summaries and not be fully realised or developed (Braun and Clarke, 2016; Clarke, 2017). The researcher saw this as important, as the researcher was seeking to avoid a thin and underdeveloped analysis (Connelly and Peltzer, 2016) by ensuring that the values and the process of template analysis were fully complied with.

As noted previously, being aware of how data would be analysed was important at the early stages of research design. Bryman et al. (2021, p. 317) note that no thought for this is ‘one of the biggest mistakes’ that researchers tend to make. That said, and as noted above for the analysis of qualitative data, the remainder of this section will

outline how the quantitative data gathered from the online survey was analysed. The online survey featured different types of questions, which saw the use of different types of variables according to the levels of measurement they produced. This saw ordinal variables, nominal variables and dichotomous variables being used within the survey (Bryman et al., 2021; Saunders et al., 2019); this is important to note, as it needed to be a planned part of the analytic procedures. Both bivariate and multivariate analysis was used, as the relationship between two or more variants needed to be analysed to explore the ‘comparability’ of stakeholder perceptions from a quantitative perspective. That said, univariate analysis was also used at the start of the data analysis stage to explore the data that had been collected.

From a bivariate analysis perspective, the researcher used this type of analysis to examine the relationships between one variable and another. The researcher notes by using different techniques, it is relationships and not causality that will be uncovered; this can lead to inferences being explored further by trying to eliminate all other factors (Bryman et al., 2021; Hall, 2020). This specific type of analysis can be actioned and presented in a variety of ways depending on the types of variables being compared. Bryman et al. (2021, p.333) have summarised the analysis that was considered when comparing different types of variables (see *Table 5* below).

Nominal	Contingency table + chi-square (χ^2) + Cramér's V	Contingency table + chi-square (χ^2) + Cramér's V	Contingency table + chi-square (χ^2) + Cramér's V If the interval/variable can be identified as the dependent variable, compare using + eta	Contingency table + chi-square (χ^2) + Cramér's V
Ordinal	Contingency table + chi-square (χ^2) + Cramér's V	Spearman's rho (ρ)	Spearman's rho (ρ)	Spearman's rho (ρ)
Interval/ratio	Contingency table + chi-square (χ^2) + Cramér's V	Spearman's rho (ρ)	Pearson's r	Spearman's rho (ρ)

	If the interval/variable can be identified as the dependent variable, compare using + eta			
Dichotomous	Contingency table + chi-square (χ^2) + Cramér's V	Spearman's rho (ρ)	Spearman's rho (ρ)	phi (ϕ)

Table 5: Methods of bivariate analysis.

The method(s) of bivariate analysis was therefore best decided upon after the designing of the survey, as the researcher had a clear idea of the types of variables that would be used. That said, it is worth the researcher noting that the above list was no means exhaustive and further possibilities were explored (Field, 2017; Foster et al., 2014). It was also necessary to use SPSS software to support analysis using most of the above analyses.

4. Ethical Considerations

‘Considering what we are doing in the name of furthering knowledge’ (Thomas, 2021, p.85) must be key to any research design. This needed to be contemplated from multiple perspectives: the participants (including the possibility of vulnerable groups) and the consideration of informed consent; the ‘activity’ or ‘activities’ that the participants were being asked to engage with; the potential for deception or concealment within your research; the importance of confidentiality and anonymity; the responsibility of data security and stewardship; and the assessment of risk. The following paragraphs will consider the above perspectives in more detail.

First and foremost, the researcher had to put the participant at the centre of the research design's ethical considerations. The research project would not have been feasible without the engagement of the participants, whose stake in the process had been adequately recognised (Thomas, 2021). In terms of the proposed sample of participants, the researcher had ensured that none had been chosen for convenience; that none had been chosen as they were easy to persuade or manipulate; and that none chosen could have been considered vulnerable. Whether or not participants could have been considered vulnerable has been supported by the questions proposed by Lewis and Porter (2004). From an informed consent perspective, the researcher noted that participants must have been fully aware what they were agreeing to and informed them of the information summarised in *Table 4* below, which is discussed by Thomas (2021, p.91). As discussed previously, the case

was classified as a 'local knowledge case' (Thomas, 2021, p. 111), as the researcher is an employee of the organisation; therefore, it was important that the researcher reflected upon conducting a project in his 'home setting' (Malone, 2003). From a leadership perspective, the researcher was mindful of his dual responsibilities both as a researcher and as a senior member of staff. As Carroll (2009) suggests, true leadership bears many responsibilities, and this includes ethical considerations. It is the opinion of this researcher that the proposed project did not hinder their professional integrity from an employee and leader's perspective.

The activity or activities that all participants were asked to carry out needed to be considered as part of the ethical considerations of this research project. Thomas (2021, p. 87) summarises the issues that may have arisen into the four areas, which were considered. First and foremost, the researcher did not foresee questions that were being asked to the participants having the ability to cause either mental or physical discomfort; this was either during the data collection stage and after the research. Secondly, there was no requirement for the participants to 'perform' in any way that may have caused embarrassment. Thirdly, none of the involvement by the participants would have been categorised as illegal. Fourthly, this was not health-related research; therefore, participants would not be in receipt of any substances.

As discussed previously, the researcher had dual responsibilities, as they are both a researcher and a senior member of staff within the organisation. It was therefore even more important that any potential deception or concealment was explored from both a researcher's and leader's perspective. Within some research, the withholding of information needs to form part of the research design; however, this was not the case with this research project. The research was therefore able to make a full disclosure to the participants about the purpose of the research and its intended outcome.

Confidentiality as a concept can be considered from different bioethical perspectives (Israel, 2015, p.102). For example, from a medical perspective, a patient will exchange information for help; however, from a research perspective, the exchange of information may not directly benefit the participant. This is important to note, as participants were choosing to give information for research; therefore, a different commitment to confidentiality was being offered as a result. As Thomas (2021, p.89) suggests, securing confidentiality is not just about anonymity, but a broader consideration of the participants' wishes, as they may have certain stipulations when it comes to publishing certain facts or opinions they have given. First and foremost, the researcher did offer anonymity in the form of removing names of participants and the organisation as a default position; however,

the researcher did note that there are instances where participants may wish to be named (Grinyer, 2002). This was not the case, however it is something that would have been considered in more depth if an instance had occurred. Moreover, the researcher was proactive in clearly explaining to participants how the data would be used, analysed and published, as it was preferable to understand any potential requests of the participants both before and during the data collection, as this might have impacted on both the analysis and reporting of findings.

In terms of data security and stewardship, the researcher assumed responsibility for any data that was collected and its storage. The data collected was anonymised, as discussed above, to protect people and institutions that contributed to it. There was of course information at the data collection stage of the research project that contained pre-anonymised names; consequently, the researcher ensured those files were password protected and kept by the researcher only. In terms of how long the data will be kept for after the project, the researcher sees no need to keep data after an outcome has been given by the university's exam board. The research will take part in the United Kingdom, so compliance with the UK Data Protection Act 2018 were adhered to.

Through the discussion of the above ethical considerations and then actioning them during the research project, the researcher sought to significantly reduce the risk to both participants and the organisation. That said, consent was sought from all willing participants through a consent form that explained the research focus; the participants' right to withdraw before, during and after the research; the way the research was conducted (changing to survey and interviews); the arrangements put in place for confidentiality, anonymity and data storage; and the option to receive feedback from their participation. In terms of risk to the organisation, the researcher gained written approval from the head teacher, who read the research proposal in full. All of the aforementioned ethical considerations were also communicated to the researcher's supervisor through the research proposal and/or the university's ethics form. The researcher waited for written approval from the supervisor before collecting any data from either the organisation's documentation or its employees. Furthermore, it needs to be noted that approval for the use of both the survey and interview design was requested and given from the researcher's supervisor before it was also used.

Chapter 5: Data Analysis

5.1: Data Analysis Introduction

As noted in the methodology section, the design of the research was both sequential and concurrent. Phase 1 being exploratory sequential and phase 2 and phase 3 convergent. That said, this data analysis section is reflective of this design and as a result, has been split into 4 broad sub-sections: analysis of the documentation, analysis of the survey, analysis of interviews and conclusions from both phase 2 (survey) and phase 3 (interviews) from a convergent perspective.

5.2: Analysis of Documentation Data

First and foremost, it is logical to start this data analysis section with the analysis of the organisation's documentation, as phase 1 of the project, the documentation analysis, subsequently supported the design of both the interviews and survey, which has been previously discussed. Through the data gathered from the documentation analysis, it was clear to see that the following terms (concepts) were frequently used by the organisation: collaboration, leadership, shared vision, values and continuous learning; however, the other concepts identified from the literature and that subsequently formed part of the conceptual framework, including similar terms and words, were not evident during the documentation analysis.

5.3: Analysis of Survey Data

Due to the design of survey, which was supported by both the documentation analysis and literature review, it is important to briefly note how and why it was designed in the way that it was, as this sub section will use its design to support the organisation of the data analysis. The table below (see *Table 6*) summarises the four broad sections used with the survey. The 'Contextual Details and SLO Ranking' section was in the main designed to try and elicit stakeholders' perceptions and opinions on the overall School as a Learning Organisation model (Welsh Government, 2018). The remaining three sections, noted in *Table 6*, and their content, were drawn from key themes developed from the literature review's conceptual framework (see *Table 3*).

Survey Sections			
Contextual Details and SLO Ranking	Perception of school Culture	Innovation and Exploration	Inquiry-based Approach

Table 6: Sections of survey.

Due to the research considering ‘stakeholder perceptions’, the role that a stakeholder has within the organisation is a key variable within this analysis. First and foremost, and excluding the ‘Contextual Details and SLO Ranking’ section, as this section of the survey is predominately made up of ranking questions, the tables below (*Table 7, 8, 9, 10, 11, 12 and 13*) are a summarisation of the disaggregated means of the three stakeholder roles: teaching assistant, teacher and Senior Leadership Team. All of the questions used the same 5-point Likert scale (strongly agree, agree, neutral, disagree and strongly disagree) from the stakeholders.

Of particular note in ‘Perception of School Culture’ section (see *Table 7* below), the highest overall mean for all stakeholders is considerably higher in one clear section: ‘innovation and exploration has the ability to improve pupil outcomes’. With $M(\text{mean}) = 4.42$, this indicates that stakeholders are in the strongest agreement regarding the statement above all other statements in this section of the survey. Moreover, when analysing the standard deviation (SD) found within the data from this section, the ‘school culture encourages both individual and collective enquiry to improve on its outcomes’ statement data shows a more significant dispersal of the data ($SD = 1.115$).

Disaggregated Mean - 'Perception of School Culture' Section.

Role		As part of my individual role within the school, I feel the want to innovate.	The school promotes an overall culture of innovation and exploration for individuals it employs.	Innovation and exploration has the ability to improve pupil outcomes.	Innovation and exploration has the ability to improve your day-to-day role within the school.	The school culture could improve in regard to innovation and exploration.	The school culture encourages both individual and collective enquiry to improve on its outcomes.	The school culture could improve in its use of enquiry.	PSC MEAN
Teaching assistant	Mean	4.00	4.00	4.14	3.71	3.71	4.00	3.57	3.8776
	N	7	7	7	7	7	7	7	7
	Std. Deviation	.577	.577	.690	.951	.756	.577	.787	.39061
	Range	2	2	2	3	2	2	2	1.00
Teacher	Mean	3.67	3.33	4.67	3.67	3.00	3.33	3.67	3.6190
	N	3	3	3	3	3	3	3	3
	Std. Deviation	.577	.577	.577	.577	.000	1.155	.577	.41239
	Range	1	1	1	1	0	2	1	.71
Senior Leadership Team	Mean	4.50	4.50	5.00	4.50	4.00	4.00	4.00	4.3571
	N	2	2	2	2	2	2	2	2
	Std. Deviation	.707	.707	.000	.707	.000	.000	.000	.30305
	Range	1	1	0	1	0	0	0	.43
Total	Mean	4.00	3.92	4.42	3.83	3.58	3.83	3.67	3.8929
	N	12	12	12	12	12	12	12	12
	Std. Deviation	.603	.669	.669	.835	.669	.718	.651	.42694
	Range	2	2	2	3	2	3	2	1.43

Table 7: Disaggregated Mean for the 'Perception of School Culture' Section.**Disaggregated Mean - 'Innovation and Exploration' Section Part 1**

Role		My role within the school gives me autonomy to innovate and explore.	As a result, I can make decisions within my role that enable me to innovate and explore.	I believe the ability to make my own decisions is important to my given role within the school.	I feel collaboration is important in regard to creating a culture of innovation and exploration.	Enough time is given to collaborate with others within your role in regard to innovation and exploration.	There are opportunities to take risks within my role in regard to innovation and exploration.	Risk taking is an important part of an innovative culture.
Teaching assistant	Mean	3.57	3.71	3.86	4.00	2.86	2.86	3.57
	N	7	7	7	7	7	7	7
	Std. Deviation	.787	.756	.378	.577	1.069	1.215	1.272
	Range	2	2	1	2	3	3	4
Teacher	Mean	3.33	3.67	4.33	4.67	2.33	3.67	4.00
	N	3	3	3	3	3	3	3
	Std. Deviation	1.155	.577	.577	.577	.577	.577	.000
	Range	2	1	1	1	1	1	0
Senior Leadership Team	Mean	4.50	4.50	4.00	5.00	4.00	4.00	4.00
	N	2	2	2	2	2	2	2
	Std. Deviation	.707	.707	.000	.000	.000	.000	.000
	Range	1	1	0	0	0	0	0
Total	Mean	3.67	3.83	4.00	4.33	2.92	3.25	3.75
	N	12	12	12	12	12	12	12
	Std. Deviation	.888	.718	.426	.651	.996	1.055	.965
	Range	3	3	2	2	3	3	4

Table 8: Disaggregated Mean for the 'Innovation and Exploration' Section Part 1

In the 'Innovation and Exploration' section (see *Table 8* above and *Table 9* below), the highest overall mean for all stakeholders is considerably higher in two sections: 'I feel collaboration is important in regard to creating a culture of innovation and exploration' and 'communication is important in regard to innovative practice'. With $M = 4.50$, this indicates that stakeholders are in the strongest agreement regarding the first statement, followed

by the second statement with $M = 4.33$. Compared to the previous section and in general, the data is showing a much wider dispersal in relation to the mean; this would indicate that stakeholders' answers, particularly in the teacher and T.A. roles, were less consistent in terms of their selection on the Likert scale. Furthermore, and of particular interest in terms of low mean score recorded, the 'enough time is given to collaborate with others within your role in regard to innovation and exploration' statement is particularly low at $M = 2.92$.

Disaggregated Mean for the 'Innovation and Exploration' Section Part 2

Role		The school's vision and values support a culture of innovation and exploration.	Leadership within the school supports innovative practice.	There is an incentive to innovate within my role.	The school learns from mistakes in a positive way.	The school uses outside influences to support innovative practice.	Communication is important in relation to innovative practice.	Despite financial restrictions placed on schools today, the school apportions enough resources to encourage innovative practice.	IE MEAN
Teaching assistant	Mean	3.71	4.00	3.43	3.71	3.86	4.14	3.57	3.6327
	N	7	7	7	7	7	7	7	7
	Std. Deviation	.488	.577	.787	.488	.378	1.464	1.134	.60247
	Range	1	2	2	1	1	4	3	1.79
Teacher	Mean	4.00	4.00	3.33	4.33	3.33	4.33	3.00	3.7381
	N	3	3	3	3	3	3	3	3
	Std. Deviation	.000	1.000	.577	.577	1.155	.577	1.000	.25085
	Range	0	2	1	1	2	1	2	.50
Senior Leadership Team	Mean	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.3214
	N	2	2	2	2	2	2	2	2
	Std. Deviation	.000	.707	.707	.707	.707	.707	.000	.35355
	Range	0	1	1	1	1	1	0	.50
Total	Mean	3.83	4.08	3.58	4.00	3.83	4.25	3.50	3.7738
	N	12	12	12	12	12	12	12	12
	Std. Deviation	.389	.669	.793	.603	.718	1.138	1.000	.53698
	Range	1	2	3	2	3	4	3	2.21

Table 9: Disaggregated Mean for the 'Innovation and Exploration' Section Part 2

Disaggregated Mean - 'Inquiry-based Approach' Section Part 1

Role		Inquiry-based working is important in regard to educational change.	Data is important in regard to inquiry-based working.	Having an inquiry habit of mind within my role is important.	My individual attributes improve my ability to have an inquiry habit of mind.	The school provides opportunities to develop an inquiry habit of mind.	The school allows distributed leadership opportunities.	My role within the school allows me to take ownership through distributed leadership.
Teaching assistant	Mean	4.14	3.71	4.29	4.14	3.57	3.86	3.57
	N	7	7	7	7	7	7	7
	Std. Deviation	1.069	.756	.488	.378	.787	.378	.976
	Range	3	2	1	1	2	1	3
Teacher	Mean	4.00	3.33	4.00	4.00	3.33	4.00	3.67
	N	3	3	3	3	3	3	3
	Std. Deviation	.000	1.155	.000	1.000	.577	.000	.577
	Range	0	2	0	2	1	0	1
Senior Leadership Team	Mean	5.00	3.50	4.50	4.00	4.00	4.00	4.50
	N	2	2	2	2	2	2	2
	Std. Deviation	.000	.707	.707	.000	.000	1.414	.707
	Range	0	1	1	0	0	2	1
Total	Mean	4.25	3.58	4.25	4.08	3.58	3.92	3.75
	N	12	12	12	12	12	12	12
	Std. Deviation	.866	.793	.452	.515	.669	.515	.866
	Range	3	2	1	2	2	2	3

Table 10: Disaggregated Mean for the 'Inquiry-based Approach' Section Part 1

In the final section, 'Inquiry-based Approach', (see *Table 10* above and *Table 11* below), the highest overall mean for all stakeholders is considerably higher in two sections: 'inquiry-based working is important in regard to educational change' and 'having an inquiry habit of mind within my role is important'. Their respective means are the highest at $M = 4.25$. Again, and similar to the previous section, in general, the data is showing a much wider dispersal in relation to the standard deviation; this would again indicate that stakeholders' answers, particularly in the teacher and T.A. roles, were less consistent in terms of their selection on the Likert scale.

Disaggregated Mean - 'Inquiry-based Approach' Section Part 2

Role		Distributed leadership is important in relation to inquiry-based working.	There is a correlation between inquiry-based working and distributed leadership.	I have the ability to read, understand, analyse and interpret data.	An inquiry-based working approach has the ability to improve an individual's ability to analyse data over time.	There are opportunities within the school to conduct individual inquiry.	There are opportunities within the school to conduct collective inquiry.	IBA MEAN
Teaching assistant	Mean	3.86	3.86	3.71	3.71	4.14	4.00	3.8901
	N	7	7	7	7	7	7	7
	Std. Deviation	.690	.378	.951	.488	.378	.000	.16532
	Range	2	1	3	1	1	0	.46
Teacher	Mean	4.00	3.67	4.00	3.67	3.67	3.33	3.7436
	N	3	3	3	3	3	3	3
	Std. Deviation	.000	.577	.000	.577	1.155	.577	.23500
	Range	0	1	0	1	2	1	.46
Senior Leadership Team	Mean	4.50	4.00	4.50	4.50	4.00	4.00	4.2308
	N	2	2	2	2	2	2	2
	Std. Deviation	.707	.000	.707	.707	.000	.000	.32636
	Range	1	0	1	1	0	0	.46
Total	Mean	4.00	3.83	3.92	3.83	4.00	3.83	3.9103
	N	12	12	12	12	12	12	12
	Std. Deviation	.603	.389	.793	.577	.603	.389	.24727
	Range	2	1	3	2	2	1	.92

Table 11: Disaggregated Mean for the 'Inquiry-based Approach' Section Part 2

Table 12 & 13 summarises the analysis of the mean data and the standard deviation discussed from the three sections discussed above. In terms of the highest overall mean (see Table 12) across all sections, the 5 statements noted below showed the most positive stakeholder responses of agreement. The significance of this will be discussed further in the 'Discussion, Conclusions and Recommendations' section below.

Highest Mean Scores Across All Sections

Role		Innovation and exploration has the ability to improve pupil outcomes.	I feel collaboration is important in regard to creating a culture of innovation and exploration.	Communication is important in relation to innovative practice.	Inquiry-based working is important in regard to educational change.	Having an inquiry habit of mind within my role is important.
Teaching assistant	Mean	4.14	4.00	4.14	4.14	4.29
	N	7	7	7	7	7
	Std. Deviation	.690	.577	1.464	1.069	.488
Teacher	Mean	4.67	4.67	4.33	4.00	4.00
	N	3	3	3	3	3
	Std. Deviation	.577	.577	.577	.000	.000
Senior Leadership Team	Mean	5.00	5.00	4.50	5.00	4.50
	N	2	2	2	2	2
	Std. Deviation	.000	.000	.707	.000	.707
Total	Mean	4.42	4.33	4.25	4.25	4.25
	N	12	12	12	12	12
	Std. Deviation	.669	.651	1.138	.866	.452

Table 12: Highest Mean Across All Sections.

In terms of the most significant standard deviations, *table 13* below shows the Likert scale questions that could be considered most notable. Most of the highest standard deviations could be seen from the ‘teacher’ role; however, and as discussed previously regarding the sampling used for this research, there are much fewer teachers to teaching assistants that have been sampled to form the data set.

Highest Standard Deviation Across Sections

Role		The school culture encourages both individual and collective enquiry to improve on its outcomes.	My role within the school gives me autonomy to innovate and explore.	Enough time is given to collaborate with others within your role in regard to innovation and exploration.	There are opportunities to take risks within my role in regard to innovation and exploration.	Leadership within the school supports innovative practice.	The school uses outside influences to support innovative practice.	Data is important in regard to inquiry-based working.	My individual attributes improve my ability to have an inquiry habit of mind.	The school allows distributed leadership opportunities.	There are opportunities within the school to conduct individual inquiry.
Teaching assistant	N	7	7	7	7	7	7	7	7	7	7
	Std. Deviation	.577	.787	1.069	1.215	.577	.378	.756	.378	.378	.378
Teacher	N	3	3	3	3	3	3	3	3	3	3
	Std. Deviation	1.155	1.155	.577	.577	1.000	1.155	1.155	1.000	.000	1.155
Senior Leadership Team	N	2	2	2	2	2	2	2	2	2	2
	Std. Deviation	.000	.707	.000	.000	.707	.707	.707	.000	1.414	.000
Total	N	12	12	12	12	12	12	12	12	12	12
	Std. Deviation	.718	.888	.996	1.055	.669	.718	.793	.515	.515	.603

Table 13: Highest Standard Deviation Across Section

If the means were analysed from the three overall sections in terms of all stakeholders combined, the differential between them would not be particularly significant; however, there is a noticeable difference between the ‘Senior Leadership Team’ and the other two stakeholder categories, which can be seen in *Table 14* below.

Disaggregated Mean - Summary of Sections				
Role		PSC MEAN	IE MEAN	IBA MEAN
Teaching assistant	Mean	3.8776	3.6327	3.8901
	N	7	7	7
	Std. Deviation	.39061	.60247	.16532
	Range	1.00	1.79	.46
Teacher	Mean	3.6190	3.7381	3.7436
	N	3	3	3
	Std. Deviation	.41239	.25085	.23500
	Range	.71	.50	.46
Senior Leadership Team	Mean	4.3571	4.3214	4.2308
	N	2	2	2
	Std. Deviation	.30305	.35355	.32636
	Range	.43	.50	.46
Total	Mean	3.8929	3.7738	3.9103
	N	12	12	12
	Std. Deviation	.42694	.53698	.24727
	Range	1.43	2.21	.92

Table 14: Disaggregated Mean for the Summary of Sections.

Whilst both the mean and standard deviation provide a useful insight into the data gathered from the survey, a bivariate analysis was also used to analyse the relationships between all variables. As Field (2018) notes, Kendall's tau_b is a more appropriate than Spearman's rho (p) in order to analyse the correlation significance between variables, as many scores were the same or similar in their ranking due to the design of the survey.

Bivariate Analysis Summary				
			As part of my individual role within the school, I feel the want to innovate.	The school promotes an overall culture of innovation and exploration for individuals it employs.
Kendall's tau_b	As part of my individual role within the school, I feel the want to innovate.	Correlation Coefficient	1.000	.885**
		Sig. (2-tailed)	.	.001
		N	12	12
	The school promotes an overall culture of innovation and exploration for individuals it employs.	Correlation Coefficient	.885**	1.000
		Sig. (2-tailed)	.001	.
		N	12	12

** . Correlation is significant at the 0.01 level (2-tailed).

Table 15: Bivariate Analysis Summary

After analysing the relationships between all variables, *Table 15* above shows the only two variables that show a significant variable between them (Sig.=.001). This will be discussed further in the 'Discussion, Conclusions and Recommendations' section below.

5.4: Analysis of Interviews Data

From analysing the qualitative data from the interviews, the following concepts (themes), see *Table 16*, were most common within responses and discussions. It would probably be expected that concepts such as ‘inquiry’ and ‘innovative’ would be discussed more, as these were the overarching sections that were set out in the conceptual framework, which has previously been discussed.

Concept	Count	Weighted Percentage	Similar Words
Inquiry	122	1.39%	inquiries, inquiry
Innovative	118	1.34%	innovate, innovating, innovation, innovative
Questions	113	1.28%	question, questioning, questions
Role	76	0.86%	role, roles
Opportunities	73	0.83%	opportunities, opportunity
Improve	70	0.80%	improve, improved, improvement, improvements, improving
Time	62	0.70%	time, times
Leadership	53	0.60%	leadership
Exploration	51	0.58%	exploration, explorative, explore, exploring
Risks	45	0.51%	risk, risks
Culture	42	0.48%	culture
Support	40	0.45%	support, supported, supports
Data	38	0.43%	data
Individual	35	0.40%	individual, individually, individuals
Collaborative	29	0.33%	collaborate, collaborating, collaboration, collaborative, collaboratively

Table 16: All Participant Concept Frequency

As previously discussed and due to a significant part of the research question being focused on ‘stakeholder perceptions’, the researcher feels it is important to disaggregate the concept frequencies into the three role categories: teaching assistant, teacher and Senior Leadership Team. *Table 17* below shows an analysis of what the frequency of concepts discussed would present like if the three roles were disaggregated. Of particular note, was the increased amount ‘opportunities’ and ‘time’ was discussed by the Senior Leadership Team member in comparison to the other two roles.

Concept	Count			Weighted Percentage			Similar Words
	TA	T	SLT	TA	T	SLT	
Inquiry	122	37	29	1.39%	1.69%	1.27%	inquiries, inquiry
Innovative	118	37	23	1.34%	1.69%	1.01%	innovate, innovating, innovation, innovative
Questions	113	42	20	1.28%	1.92%	0.88%	question, questioning, questions
Role	76	12	20	0.86%	0.55%	0.88%	role, roles
Opportunities	73	11	26	0.83%	0.50%	1.14%	opportunities, opportunity
Improve	70	15	14	0.80%	0.69%	0.61%	improve, improved, improvement, improvements, improving
Time	62	10	22	0.70%	0.46%	0.97%	time, times
Leadership	53	13	15	0.60%	0.59%	0.66%	Leadership
Exploration	51	16	4	0.58%	0.73%	0.18%	exploration, explorative, explore, exploring
Risks	45	11	10	0.51%	0.50%	0.44%	risk, risks
Culture	42	15	4	0.48%	0.69%	0.18%	Culture
Support	40	12	6	0.45%	0.55%	0.26%	support, supported, supports
Data	38	11	5	0.43%	0.50%	0.22%	Data
Individual	35	8	11	0.40%	0.37%	0.48%	individual, individually, individuals
Collaborative	29	10	7	0.33%	0.46%	0.31%	collaborate, collaborating, collaboration, collaborative, collaboratively

Table 17: Disaggregated Concept Frequency

Chapter 6: Discussion and Conclusions

6.1: Introduction

Following the previous data analysis section, this section will focus on how the analysed data in the previous section could be interpreted. Both the survey and interviews will be discussed concurrently in order to support the discussion from more than one perspective.

6.2: Innovation and Exploration

From the data, it could be argued that stakeholders' strongest and most consistent views correlate more frequently under the concepts of innovation and exploration. Evidence of this can be seen when stakeholders have given the strongest mean scores in relation to this. For example, the statements noted in *table 18* below show the highest recording means and they all have a direct relationship with innovation and exploration.

Statement	Mean
'Innovation and exploration has the ability to improve pupil outcomes'	4.42
'I feel collaboration is important in regard to creating a culture of innovation and exploration'	4.50
'Communication is important in regard to innovative practice'	4.33

Table 18: Innovation and Exploration Highest Associated Means

Further to this, the only significant relationships between variables when considering a bivariate analysis was seen between the following: 'as part of my individual role within the school, I feel the want to innovate' and 'the school promotes an overall culture of innovation and exploration for individuals it employs'. Moreover, when considering how much a concept was discussed during the interviews, 'innovation', and similar words, was discussed with a high degree of frequency.

From the above, it could be concluded that stakeholders' overall perceptions are generally very positive regarding the broad concepts of 'innovation' and 'exploration'. Furthermore, there generally seems to be a positive attitude in terms of the importance of innovation and its ability to improve the organisation. There also appears to be a correlation between the time element needed for collaboration. In terms of data to support this, the concept of time was discussed considerably during the interviews and also the statement of 'enough time is given to collaborate with others within your role in regard to innovation and exploration' had a particularly low overall mean of $m=2.92$.

6.3: Inquiry-based Working

Form the data gathered, it could also be concluded that stakeholders have a strong belief that inquiry-based working has the strong potential to impact change within education. To support this, high mean scores ($m = 4.25$ respectively) were seen in several statements: 'inquiry-based working is important in regard to educational change' and 'having an inquiry habit of mind within my role is important'. 'Inquiry' was also the most discussed concept within the interviews.

6.4: Standard Deviation

When considering the standard deviation between mean scores, the data clearly shows that the most significant variances between individuals' collective perceptions can be seen within the role of teacher. This could imply, to some degree, that teaching staff have a much wider perceptions.

Chapter 7: Future Recommendations

7.1 School Recommendations

In terms of future recommendations from the research and from the organisation's perspective, it is clear that the school could carry out further research in a number of areas to improve upon their understanding of data and conclusions that has been gathered and made with this research project. For example, the school may wish to further consider and research why teaching staff have a significantly higher standard deviation in their perceptions. They could also consider if it is possible to improve upon the time given for innovation and exploration, as this was also a noteworthy point of the research and its conclusion. The researcher would readily admit though that this most likely linked to the funding deficit that schools are faced with at this current time.

7.2: Future Research Recommendations

In terms of future research, both the survey and interview design could quite readily be used in a different context, as the conceptual framework was designed predominantly from literature and then supported by documentation analysis. It is worth noting, as the researcher has previously mentioned, that due to the Schools as a Learning Organisation model (Welsh Government, 2018) being somewhat every context that it is applied, it would be unwise to make generalisations from this specific case.

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Appendices

Appendix A - *Participant A Interview Transcript*

Researcher: So the first section on here is thinking about the overall kind of culture of the school. So the first kind of questions are thinking about the school. Do you feel you want to innovate as part of your role?

Participant A: Yeah. I'm always interested in innovating in order to encourage the children to be innovative. So I think being innovative starts with a teacher. You're their role models. And obviously the new curriculum encourages children to be innovative, take risks and how they deal with risks, how they manage change, embrace change. So it's definitely something that I feel is important in my role as a role model, I think.

Researcher: Yeah. Do you think the school promotes an overall culture of innovation and exploration?

Participant A: I think it's something we are developing, we are trying to look to develop. I wouldn't say it's something that's embedded at the moment, but I think it's something that we're all mindful of, especially like I said, you know, particularly with the new curriculum. However, I also think it's something that we are a little bit apprehensive about what we say because perhaps we're not familiar in the approach to go the structure, what they look like, how do we facilitate it, you know, being a facilitator rather than a controller. That's something I feel.

Researcher: It's a lot to think about isn't it?

Participant A: Definitely.

Researcher: Do you think then, leading on from that, innovation and exploration has the ability to improve pupil outcomes within your role of the school with the school innovating and exploring different ways you think that does link to pupil outcomes?

Participant A: I think it can definitely have a potential, but I think it has to be planned carefully with thoroughly clear objectives and know where you're aiming, what the end product is going to be. I think it's something that has to be given a lot of thought beforehand and in order for it to have clear outcomes that are purposeful, because if not, it can have a tendency to just be a little bit woolly, you know, not purposeful.

Researcher: So leading on from that, then, do you think then the school could improve on the way that you kind of half answered that in this kind of innovative and explorative culture? Do you think the school could improve in that?

Participant A: Yeah, I definitely think that. It's like I said, moving forward. I think it's certainly something we need to look at as a school and decide on what again links it. You know, our values, our attitudes, what's important, our curriculum. How does it look in our school? So is it a consistent approach? Which I know is on one of the questions on the questionnaire in regards to the resources as well, because that's obviously important. If you don't perhaps have the resources and the ethos to deliver it. Then I don't think it's going to be effective.

Researcher: No, it's a valid point.

Participant A: Yeah.

Researcher: Last couple of questions in this section then. So thinking about school culture, do you think the school encourages both individual and collective inquiry? So using I suppose questioning or your guiding inquiry to I suppose to improve on itself.

Participant A: Yeah I think we do. And again it's something that we are working on. This year the way we start our concepts now you know obviously in Key Stage two we've been looking at using the question inference squares, you know, it was a way of hooking in and having quality questions. Like I say, the deeper questions support you because I like an inquiry question based approach. I know that

when we had the pioneer in teaching and learning course, they said not to use an inquiry question. We talked about it but I sort of disagree because I think it's quite nice to have as your hook, isn't it?

Researcher: Yeah. It depends on the question. If it's quite narrow, yeah, it will be a problem. But if it's broad you know.

Participant A: Yes, but that then relates back to planning. You've got to think about it. What is it? What is the question?

Researcher: Last kind of question in this section then. Do you think the school could improve in terms of inquiry in the way it thinks about inquiry to kind of drive improvement?

Participant A: Yeah. Like I said, that's something that we definitely need to further develop. And I think we need to develop it as a staff not in isolation. And again decide what's our priorities? How do we get that meaty question, like you said? Encompasses can encompass a lot of things. I said not narrow.

Researcher: Both at the class level and kind of like a professional development level?

Participant A: Yes. Both ways, isn't it? As I said, we need to know what we're looking for from our children in order to foster that out of them isn't it? Let's be clear in our minds first.

Researcher: Thank you for that. Next section now is talking about innovation and exploratory culture. So all of these things going down here are basically things. How do these impact them? And I suppose in a sense then so in your role, do you think you've got much autonomy to make your own decisions and kind of how important do you think that is if you do?

Participant A: Yeah I Definitely think we have. I think we're given quite a lot of autonomy, you know as class teachers to drive what goes on in our classroom. Especially, you know, as a result of the new curriculum in particular, I'm thinking about going back to the who is now, who are the children in front of us, what do they need? And basing our approach around our learners.

Researcher: So the next kind of thing thinking about then, thinking about collaboration. Do you think that it's important to have an innovative and explorative culture?

Participant A: Yeah, definitely. Like I said, I think things will only work, particularly as a school, if we have that shared vision and that collaborative approach to innovation and those things, definitely.

Researcher: So next question then linked to that. Do you think we give enough time for collaboration?

Participant A: Not at the moment, no. I think it's something that we are mindful of and our innovation. The inquiry approach is something that we are mindful of and we definitely need to develop it more.

Researcher: The next thing then is under the next kind of section. Risk taking. Do you think there's enough opportunity to take risks and how important do you think it is?

Participant A: Not at the moment. Again, it's something I'm mindful of as a practitioner that I do need to loosen the reins a little bit more and allow them to take more risks and allow more independent learning. However, I'm also mindful of the who. And it's not something that can be done overnight. It has to be planned for and, when they're ready, you can allow that to happen. You need to establish an ethos and an understanding and expectations in the classroom before perhaps you can go down the big risk taking route, but I think it needs a lot more and perhaps linked to outdoor learning more as well. Not forest school now, but outdoor learning, you know, lifting the lid off your classroom.

Researcher: These are all kind of things against this innovative and exploratory culture. Do you think the school's visions and values support innovation and exploration at the moment?

Participant A: Again, this is something that we are definitely looking to develop, isn't it? You know, we want them to be confident individuals. We want them to make decisions, risk taking based on being informed, you know, making informed choices. So we are definitely going down that path. I think we definitely, that's something that we want to instill in our learners, isn't it.

Researcher: Next then, do you think ,and be honest, do you think the leadership within the school supports an innovative practice?

Participant A: Again, I think it's going down that route, isn't it? I think, you we're all mindful. And you as leaders, that is something that we need to develop because you know it obviously plays a big part in the new curriculum which you know I do feel supported that you're on there. I just think we need more collaboration now and discussion about what that looks like. How do we incorporate that in our classrooms in our school and yeah, that strategic collaborative planning.

Researcher: In terms of incentive then do you feel you've got an incentive to innovate? If that could be I don't know, it could be financial. It could be professionally, you know. Do you feel incentivized I suppose is the word I'm looking for.

Participant A: So yeah, yeah, I do, but I suppose part of me is always a bit apprehensive because innovation can be quite open can't it? It can be quite broad. But as a whole I'd say. Yeah. You know, it's something I do embrace you know.

Researcher: Thank you. Do you think the school learns from mistakes in a positive way in light of something that a mistake has been made? Do you think the school learns from it?

Participant A: Yeah, definitely. Yeah.

Researcher: Last couple of questions in this section. Thinking about the school, do you think it uses outside influences to support innovative practice?

Participant A: We have very much so involved in the curriculum. We've done so much of that since I've been here. You know, we're really embracing, you know, getting support in, people coming in. You know, we take their views. You, Person and I being part of the teaching and learning group. I think that's had a big impact on the school and our practices. I think we need to get more in. That's my aim for the next topic so the children have more opportunity from experts. To help their learning the same way we've had experts in to help with us, with our professional learning. I now think it's a place for us as a school to get to. I've been thinking that for, you know, for the culture and religions and we don't do that as much as we think we could.

Researcher: Next one then, how important do you believe communication to be in relation to innovative practice?

Participant A: I think yeah, you definitely need communications. I think it is paramount to be honest. You need to share what you're doing or what you want to do or what your aims are so other people can, if they're not on board, they can at least know about it.

Researcher: Last one in this section. So this one's kind of a loaded question in some senses, despite the financial restrictions based on school today, do you think the school apportions enough money to the resources? I think we've already touched upon it in terms of innovation and things.

Participant A: I don't know. I think it's something, again, we need to look at in relation to those expertise. Like I said, I think there is a need for us, particularly in certain concepts for us to hook in on that. Like the next concept. I think we really need to think about the innovation side of it, the managing risks. And that inquiry based question and how we can get others in to help. Yeah. And that real purposeful, yeah. And that diversity of that as well isn't it. You know, just who in our cenefyn and even who around us is already immersed in that culture? Even thinking when we've been talking about black history. It would be really nice to have someone from the community perhaps talking about their experiences, because this is not something we read in a book or somebody's experiences in

South Africa. For somebody to come in and actually say, well, I'm Joe Bloggs down the street down there in the community. And yeah, this is what I think. And I think that makes the case.

Researcher: Yeah.

Participant A: It's not just something we listen to on the news or we know about that's happening but it's not happening in our community context.

Researcher: Right. Last section then. Thank you for the other two. I know they're quite long winded. This is basically around inquiry-based leadership and basically using inquiry to drive what you do in the classroom. What you do professionally, what we do for school development and that sort of sense. So the first question is then, do you think inquiry-based working is, how important do you think it is in regard to educational change?

Participant A: I think I've always got to be asking questions. You've always got to be thinking about the what next and why, the why and what. Like I said, that's what's driving our new curriculum at the moment, isn't it? And I think that that really made me think of my practice a lot more now, you know, the who, the wider what.

Researcher: Leading on from that, then how important do you believe data to be in regard to inquiry?

Participant A: It plays his part, doesn't it? It's not always the answer. But again, it depends what the inquiry question is and what the purpose of the data is. And you know, again, like we talked about it's got to be purposeful. Why are you doing it? What's the point of it? What is the aim? Is it actually going to inform your inquiry? Is it going to lead to some answers?

Researcher: Next question then. Thinking about your role, do you believe having an inquiry habit of mind, do you think that's important within your specific role in the school?

Participant A: Yeah I think it is because again you just self-reflect. I think it makes when you're in an inquiry you have an inquiry approach. I just think it makes you more reflective in your practice. Because you almost wanted an answer. Because inquiry starts with a question doesn't it? So you're always looking for that answer.

Researcher: Right. So this is where the leadership a little bit comes in then. Do you think the school gives opportunities for distributed leadership? And that could be for like an informal capacity with a title or not or like an informal.

Participant A: Yeah, I think it does. I think we need to develop our support staff more and give them more autonomy and I want to say accountability as well. I just feel sometimes they're a bit floaty. I think they need to have more of a purpose in their role. And I think I would like to think that would lead to them being more productive. That's the wrong word. Perhaps more independent. Don't have to be led as much. If they know what we're aiming for, what we do, then they are on board. They lead in it as well. Yeah. It's not us leading them and then them trying to lead the children. So it's more like an extension of you which it should be. So I think that needs to be developed a little bit more.

Researcher: So next question. What sort of correlation do you think there is between inquiry based working and distributed leadership? Do you think like the two support each other or are they completely different? Or do you think you've got to have one without the other, I suppose, or could have one without the other?

Participant A: I think it depends. I think it depends on what your focus would be, because one would require more of an inquiry based leadership. I think they both have their place. That's what I would say.

Researcher: Okay, last couple of questions then. Do you think inquiry based working has the ability to improve either yours or other people's ability to analyze data over time, to look at information and to do something with it?

Participant A: Should do because they go hand in hand. Because if you're using the right data and it's purposeful and you've got an inquiry question and something you're trying to fight against starts with a question you're trying to find out. Or that data. And if people are analyzing and looking and knowing what it is that should help develop. Then because they don't have an exposure to them and they should know what they're looking for based on the inquiry. So it should go hand in hand if they don't have the opportunity to have an inquiry-based approach and use the data.

Researcher: Do you think inquiry-based work works better individually, collectively, or maybe a bit of both?

Participant A: I say collectively. I think if something's going to be purposeful, if it's going to have an impact and you're trying to find answers. It comes back to that saying, for me, two heads are better than one. That collaborative approach.

Researcher: So this is leading on from that question. Do you think there are opportunities for both individual and collective inquiry in the school or either one or the other or none?

Participant A: Yeah, I'm a fan of being collaborative. Even if somebody has a role, you know, as a coordinator or as the leadership, I still think it requires collaboration and other people's views and opinions to get that holistic outlook rather almost a ten year vision. And you're just doing things. You squirreling off in a room. No one knows what you're aiming for, what you're doing. I always see working in a school as a ship. In order to go in the right direction, you've all got to be steering the same way.

Appendix B - Participant B Interview Transcript

Researcher: So the first kind of section is talking about overall perceptions of culture. Do you feel as an individual, a want to innovate in your role?

Participant B: Yes.

Researcher: Then thinking about the school then do you think the school promotes a culture of innovation and exploration?

Participant B: Yes.

Researcher: Do you think innovation and exploration has the ability to improve pupil outcomes if you innovate?

Participant B: Yeah.

Researcher: It's thinking about innovation, exploration. Then do you think it's the ability to improve your day to day, what you do on a day-to-day basis?

Participant B: Yeah, potentially. Yeah.

Researcher: Do you think the school could improve in regard to innovation and exploration?

Participant B: I don't know. I think we're on the right path. I think it's all a bit new. So for, you know, how long we've been doing this sort of thing.

Researcher: It's a big change, isn't it? Do you think being encouraged on both individual and collective inquiries in schools? So basically asking questions to kind of improve outcomes?

Participant B: Yeah.

Researcher: Do you feel the school culture could improve in terms of inquiry? So do you think we need to I suppose in a nutshell use inquiry more asking questions and that kind of process too?

Participant B: Yes. But I think further along. For where we are, you know, the stage that we're at now, I think we're doing all right.

Researcher: All right. Next section. So all of these questions are linked to innovation and exploration. So it is basically what do you think against this. So the first one is, how much autonomy do you think you have within your role? And I suppose feeding onto that, to make your own decisions.

Participant B: How am I supposed to gauge that?

Researcher: It's your perception.

Participant B: Yeah. I do feel we have that. We are able to, you know, take things.

Researcher: Do you think that's important?

Participant B: Yes.

Researcher: How important do you feel collaboration is in creating a kind of innovative and explorative culture?

Participant B: I do think it is important. I do think we all need to sort of be on the same page in that respect.

Researcher: And do you think we spend enough time collaborating?

Participant B: In an ideal world, I think we'd have a bit more time. At least maybe in key stages. I know in an ideal world, we'd like to say, we'll do this, we'll do that. But obviously time is a factor.

Researcher: And then against that kind of innovative sort of explorative culture then do you think there are opportunities to take risks in the school?

Participant B: Yes.

Researcher: Do you think there needs to be more opportunities? Less opportunities?

Participant B: No, not really.

Researcher: So I take it you feel that risk is risk is a good thing then in that sort of sense?

Participant B: Yeah. To an extent. Yeah.

Researcher: The next question then is thinking about the vision and values of the school, do you think our vision of values and what goes on behind the school supports an innovative and explorative culture?

Participant B: Yeah, I think so yeah. The values that we have, as you know, staff and as a school support what we do.

Researcher: Next question then thinking about leadership. Do you think the leadership within the school, and you can be honest, supports the innovative practice?

Participant B: Yes. Definitely.

Researcher: Do you think there's an incentive to innovate?

Participant B: I don't think there's an incentive. I think that we're all, like on the same page and we're all think in a very similar way. So I don't feel like there's an incentive to do it. I think it's something that we all want to do.

Researcher: Do you think the school learns from its mistakes in a positive way? Do you think the school is thinking about outside influences and things, then do you think the school supports innovative, innovative practice? You know, going out and getting things from outside?

Participant B: Yeah, I think so. Yeah, I definitely can.

Researcher: The last question in this section then, and this is kind of a loaded question in some senses, is despite the financial restrictions based on school today, do you think we basically apportion enough money towards innovative practice?

Participant B: Yeah, as best we can. Yeah.

Researcher: So. We've done this last section. Now, this section here is basically about inquiry-based leadership or by inquiry based is basically, you know, asking questions to find an answer. How important do you believe inquiry-based working is in regard to educational change?

Participant B: So yeah, I think it's quite important. I don't think, you know, if you're not going to go and explore and research, you're not going to be able to develop a new curriculum.

Researcher: Yeah.

Participant B: Especially the way the curriculum is. You know, it's not like set out like it was. Or you have to teach this, this and this.

Researcher: So in regard to that then, how important do you think the use of data is?

Participant B: We need data because obviously you need to ensure that what you're doing is going to be successful. You know. So you need to measure what you've done because otherwise you're not going to learn anything. If you're going to do the same thing, you're failing each time. You're never going to learn anything. So I do think in some respects we do need data to be sure.

Researcher: Next question then thinking about that again. How important do you think having an inquiry habit of mind is, sort of having that kind of curiosity and that thinking behind it?

Participant B: Yeah, I think most teachers do have that sort of mindset anyway. So I do think, yeah, at some extent it is important to want to explore and make changes and stuff.

Researcher: So next question then thinking about distributed leadership. And basically that could be informal and formal in some senses. Do you think the school gives opportunities for people as opposed to ownership? And, you know, for people to have their own leadership in different areas and things?

Participant B: Yeah. I think everyone's given opportunities where, you know, they need or want to improve.

Researcher: Next question then. Do you think there's a correlation between that kind of inquiry based working and distributed leadership? Do you think they go hand in hand or do you think they are separate?

Participant B: Um, to some extent, yeah, probably. Yeah, I would say.

Researcher: Do you think then the ability to analyse data can improve over time?

Participant B: Yeah, I think so. The more you do something, the better you're going to get at it.

Researcher: The last couple of questions then. So this is all around the same thing. Do you think inquiry-based working is better suited individually or collectively then?

Participant B: This was a question that really took time on the forms because, I don't know, I think both. I mean, I think it works in both ways. Both have valid reasons.

Researcher: So the last question is, are there opportunities for individual inquiry and collective inquiry in the school?

Participant B: Yes, definitely.

Appendix C - *Participant C Interview Transcript*

Researcher: So the first section then is thinking about the overall culture of the school. As an individual, do you feel the want to innovate as part of your role?

Participant C: Yes.

Researcher: Do you feel the school promotes an overall culture of innovation and exploration for its employees?

Participant C: Yes, I think so.

Researcher: Do you think innovation and exploration has the ability to improve pupil outcomes?

Participant C: Definitely.

Researcher: Do you think innovation and exploration has the ability to improve your day to day role within the school?

Participant C: Yeah.

Researcher: Do you feel the school could improve in regard to innovation and exploration to improve its culture then in terms of, you know, what we do as a school in regard to it?

Participant C: Maybe a little bit. I don't know, it helps having a bit more freedom with the new curriculum, but it's just getting used to a new way of doing things and being braver with things. Maybe getting rid of our old sort of ways of doing things.

Researcher: Thank you. Next question then. Do you think the school encourages individual and collective inquiry?

Participant C: Yes. I think that TAs could be involved in more things maybe. I think we are included in a lot of training and things like that.

Researcher: So then this kind of leads on to the last one. Do you think the school could improve in inquiry?

Participant C: So TAs could be more involved.

Researcher: So that's section one. This next section here is all about innovation and exploration. So to kind of put it into context. How much autonomy do you think you're given within your role? And do you feel you can make your own decisions?

Participant C: To some extent, yeah. I think more of the Thrive stuff. I've got to sort and make more decisions that I can make there.

Researcher: Do you think it's important to have that autonomy?

Participant C: I think so, yeah.

Researcher: What about collaboration then? Do you think it's important to have collaboration, to have an innovative and explorative culture in the school?

Participant C: Yes.

Researcher: Okay. Do you think we have enough time to collaborate?

Participant C: No.

Researcher: Okay. In terms of risk taking, then do you think there's opportunities to take risks? And if so, do you think there needs to be more or less or the same kind of opportunities?

Participant C: I think it'd be nice to be able to take risks, but it just feels like we're slogged down with the sort of everyday things and that kind of takes over.

Researcher: Do you think it's important to take risks?

Participant C: Yes.

Researcher: Okay. All right. Next question then. This is related to vision and values of the school. Do you think the vision of values of the school support that innovative and explorative culture or an explorative culture, you know, the culture of innovation and exploration?

Participant C: Yeah, I think so. I think we're working on it.

Researcher: This one, I've said the same to everyone. Be honest. Do you think the leadership within the school supports innovative and innovative practice?

Participant C: In what way?

Researcher: So do you think the leadership I suppose, provides, gives opportunities and supports opportunities for you to be innovative within your role?

Participant C: Well, for me personally, I feel that I'm sort of trusted to do my role as I want to do it. So yeah, if I'm thinking of myself then yes.

Researcher: Do you think there's an incentive to innovate? So this could be like, I don't know, financial or it could be, like professional development or just as you as a person, do you feel incentivized to innovate?

Participant C: Sometimes.

Researcher: Yeah. There's and there's no right or wrong answers to this. Do you think the school learns from its mistakes in a positive way?

Participant C: Yeah.

Researcher: Do you think that outside influences support the school to be more innovative?

Participant C: All the curriculum changes and all that?

Researcher: Yeah, yeah. So, you know, people from outside of the school walls you think they'd support. What we do in school, so it could be, you know, a whole host of things.

Participant C: So do you mean like the government?

Researcher: Well it could be, it could be government, it could be the authority, it could be projects.

Participant C: I think so, but I think that there's still a lot of red tape over some things.

Researcher: Last two in this section then. So this one. Do you believe communication to be important when thinking about innovative practice?

Participant C: Yeah, definitely.

Researcher: Okay. And then the last one then. So this is kind of loaded in some sort of senses. But do you, despite financial restrictions placed on schools today, do you feel the school apportions enough resources to encourage innovative practice?

Participant C: Well, we do the best that we can, don't we?

Researcher: Yeah. Okay.

Participant C: And, you know, I know that there's grants and different things that happen. Which always help with different things.

Researcher: Last section here is basically around inquiry-based working. The first question is, do you believe inquiry-based working supports educational change?

Participant C: Yes.

Researcher: In terms of inquiry-based working, do you believe data is important?

Participant C: Yes. Because you need to evidence what you're questioning and find better ways of working. That would come from the data.

Researcher: Thank you. Do you believe an inquiry habit of mind does or do you believe you've got an inquiry habit of mind within your role?

Participant C: Yeah, I'm curious.

Researcher: Next question here is about distributed leadership. So this could be formal as in you've got to take low informal. Does the school offer opportunities for distributed leadership? So I suppose not one person making the decisions or, you know, leading in that sort of sense.

Participant C: Yeah, I think so.

Researcher: Do you think your role within the school allows you to take ownership through, you know, informal leadership?

Participant C: Yeah.

Researcher: Do you think there's a correlation between inquiry based working and distributed leadership?

Participant C: Yes, because you've got lots of people making the decisions and able to ask questions of what's working and what's not working.

Researcher: Thank you. Do you think over time if you are thinking about inquiry-based working, do you think that's got the ability to improve people's skills in analysing data over time? So doing inquiry-based work and do you think people can improve upon the way they analyze and look at data?

Participant C: It's the more that you look into things, the more you'll see.

Researcher: Last couple of questions then. So do you think an inquiry-based approach will work in the school is more suited to individual or collective inquiry or both or none?

Participant C: Well, both.

Researcher: And then so this kind of links to that last question, then, do you think there are opportunities for both individual and collective inquiry or one and not the other or more so?

Participant C: Yeah, I think there is.

Researcher: Brilliant. Thank you.

Appendix D - Participant D Interview Transcript

Researcher: So thinking about the school culture. Do you think in terms of inquiry it encourages both individual and collective inquiry?

Participant D: Yeah. There's certain aspects, I think, that we're doing at the start of a new topic, for example, I think. I don't know if I'm going down the right route now, but.

Researcher: Yeah, it could be a class level. It could be at a school.

Participant D: Yeah. I think I speak more on a class level because that's where I am, isn't it? I don't get involved in the ins and outs of the school so much as you know, teachers and higher than that is. But I think on a class level we start a new topic and we have the question trees and all that business. So I think it's a much broader topic. So the topics are much broader than what we did before. They were very specific and very set. Whereas now you get things off the back of different topics and the kids might, you know, come in with something. We'd start a topic and they'd go, oh, what about this? Which is off on a tangent, but it's like a spider diagram or whatever then isn't it. So they've got the opportunity to question things more definitely, I think.

Researcher: The last question then in this section then is do you think the school could improve in terms of inquiry?

Participant D: Yeah, I think again, it's something that you can't ever tick the box that yes, we've done that. It's something that can always be improved upon. You know, perhaps we can have more specific things because I know, we always use the question tree and stuff, but I think there's more things coming into play now where maybe we haven't quite got as much time for things like that. There's not such a focus on things like that. Maybe because there's other things going on as well. I think for the children, certainly in class, if there was a visual like that, if there was more of a focus on that, they could then go to that question tree and perhaps go home and do their own research, sometimes with their parents or whatever, you know. But it's things like that that I think maybe with the new curriculum, other things have come into play that focuses on different things slightly, so there's not as much time for us to sort of talk about things like that. And I think certainly as they get older, you know, as, as you get through the year groups, maybe in nursery reception, there's more of a focus on that. And then as they start coming up, there's other things.

Researcher: So the next section then is thinking about innovating and innovation and exploration and exploratory exploration like just by itself. So do you think you've got autonomy within your role then? Basically to make your own decisions?

Participant D: It would be more specific, I think for mine. It would be the creative side. The creative like, doing the arts and crafts and things like that. You know, there's always a scope for me to say to the class teacher, I really like this idea. And that's always been the way I think. Teachers are sort of focusing more on unless they've got a specific thing they'd like to do, for example, Christmas cards coming up now. Quite often it'll be the TA that will say, I've had this idea. Shall we crack on? They're happy for you to do it, unless it's something they specifically want you to do. So I think in that respect and, you know, they're always open to ideas. You know, if I come up with something completely off the cuff, it could be a forest school or whatever. There's always somebody that I can go and say, I've had this idea. What do you think? And, you know, they could either run with it or not, then.

Researcher: Do you think across the board then autonomy is important? You know, people have in their own kind of voice within the school and being able to make their own decisions. Do you think that's important being innovative and being able to explore things?

Participant D: Yeah, I think so because I personally think I'm quite a creative person anyway. And I think if that's stifled and constantly, you know, you haven't got those opportunities, it's quite disheartening. And I think you then stop having those ideas or even bothering. So I think for everyone to be on board with that, there's got to be that opportunity for everyone to have their say almost, if you like, not their say, but, you know, to have their ideas heard.

Researcher: Thank you. Next sort of thinking under that then is collaboration. Do you think that it's important to be innovative and explorative in kind of your thinking? How important do you think that would be?

Participant D: Yeah. Generally speaking, I think you've got to have collaboration of new curriculum. We're a team at the end of the day. So I think you've got to have the support as well around you if you've got, especially if you've got bigger ideas, you know, things that you'd like to do or whatever. You can't do it solo. You have to have other people on board to help you really. And everyone has a different set of skills as. Which is great. And, you know, you've got to be able to pull those people in.

Researcher: Do you think the school gives enough time to be collaborative?

Participant D: It's tricky because time is something we're really short on at the moment, isn't it? I think with all schools time is precious. So it would be. You know, I think it's almost. You could almost say it's a luxury to have that time. To be able to meet up and have those conversations because the daily running of the school is just so intense. We haven't got time for things. You know, the added extras are really, you know, it's trying to get the things done that we have to. It would be lovely to have a bit more time to, you know, bounce those ideas. We've got insets and stuff. But again, they're so intense, aren't they? And, you know, every minute is accounted for. So it is tricky unless you're doing it in your own social time basically isn't it.

Researcher: So we've done autonomy. We've thought about collaboration. Thinking and about taking risks. Do you think that's important to, you know, being able to take risks in like in terms of like innovation and exploration?

Participant D: Yeah, I think you have to otherwise it's not you know, I'm speaking specifically to classrooms. Not really. You know, there's things that you can try that maybe don't work. It's not the end of the world. But you know, if you're looking at bigger things, then, you know, the world wouldn't progress unless, you take risks. So I think it is quite important to be able to have that option.

Researcher: Do you think we need more or less opportunities or the same amount of opportunity like in regard to that, you know as a school then?

Participant D: I mean, speaking generally, I think it was again, it would always be nice to have that, you know, extra opportunity, extra time, etc. But I think, again, time is precious.

Researcher: So our vision and values as a school, do you think what our vision, our values of the school, and be honest, do you think the vision, the value of the school supports an innovative and explorative culture?

Participant D: It's getting there, I think. Yeah, I think it's one of those things that, again, you can always improve upon. But certainly, the people that work here, all of us, you know, our values and things. Yes. We do aim for that anyway. But I think, again, it's something that you just keep improving on, through time.

Researcher: So leading on from that then thinking about this again is against the there's a theme going on here, innovative culture and exploration. Do you think that the leadership within the school supports them in a, you know, innovation and exploration?

Participant D: Yeah I think you know where you can that that again, is the thing isn't it, where you can. Yes, definitely. But it's like everything else, isn't it? It's not always possible. But no, certainly the opportunity is there, it's open. And we know that if we had ideas or we wanted to come and speak to either yourself or Person, then we can and we'll be heard as well. That's the difference. You know, sometimes there's, you know, you work in places and you, even if you felt you could go and say something, it is just pushed in a drawer and never to be spoken about again.

Researcher: Do you think there's an incentive to innovate in the school where it could be your role or overall?

Participant D: Yeah, I think in the last couple of years since you've joined, there's certainly been a lot more focus on it. Which is great because I think it's quite easy to get stagnant and not progress because things are working. You know, if it ain't broke, don't fix it. But that's where the risk taking comes in. And I guess, so I think, yeah, there's definitely much more opportunity these days in the last few years.

Researcher: Leading on from that again. So these are all things basically against, you know, against the thing again, do you think the school learns from its mistakes in a positive way? So if anything that doesn't go right, do you think the school learns from it?

Participant D: Yes, I think we have to. Otherwise, we're not doing our jobs, are we? There's, you know, there's big things that. Yes, definitely, they're dealt with, you know, immediately and for the foreseeable future then, but, you know, there's little things then going back to classroom things that maybe, you know, we will deal with in the classroom that potentially could be dealt with as a blanket thing, you know, to stop these things happening again. But I think it's just so busy. Like it's just so busy in school that you've dealt with it. You forget about it almost until it happens again. They go, oh, I must mention that. And these things just sort of, you know what I mean? Yeah. No, there's so many little things that happen, that we just haven't got the time immediately to pass on. Then something else will happen and that's gone, you know, as it is so much we can hold in our brains. Little things, but the things that could again, room for improvement is always.

Researcher: So last couple then, outside influences. Do you think the school uses outside agencies and things to actually innovate? Do you think there's influence from outside?

Participant D: I mean we've got the creative lead projects and, you know, we've got all the music, the peripatetics and those that come in as well, which is great. And over the years, there's been a lot of, you know, we've got like the forest schools and stuff like that. Not every school has that opportunity. We're lucky that we've got the woods and stuff up there, which I think is so important for children to have that outdoor opportunity. So things like that I think are coming more and more into schools. But you need to be, the schools have to obviously pull that in. So I think, you know, in terms of that, definitely there's a lot here, you know, in various of the schools that I've worked in, we have a lot more going on here than, than some of the others do.

Researcher: On to my question then in this section then thinking about communication, do you think communication is important to have an innovative exploratory approach?

Participant D: If you've got rubbish communication, you've got nothing have you? I think, yeah, I said it earlier. You know, I think you and Person are very approachable and we know that we'll be heard. If your staff didn't feel like that, no, you wouldn't get anywhere.

Researcher: The last question in this. Do you think the school apportions enough money to be innovative, to, to be an innovative then?

Participant D: Yeah. I mean I don't really get involved with the financial side of things and the funding and everything. But from what I've seen, you know, we make the most of opportunities for grants and things like that coming in. I think financially it is, across the board, everyone's struggling. And so I think, um, yeah, I think whatever you can apportion to.

Researcher: Right. Last section. This section here is all about inquiry-based leadership. So that basically means that your leadership is your leadership or the school's running through inquiry then. Do you think working in that inquiry-based way can improve education?

Participant D: Yeah, I think it definitely comes down to communication again, doesn't it? I think if you know your team isn't talking to each other or speaking to yourselves, again, you'd fall into that stagnant thing almost because people sort of get deflected. That's not the right word. But they become yeah, they don't want it. You know, they just say, oh, what's the point? Whereas I think, if you haven't got staff that are enthused then you haven't got much of a school running then. So it's really tricky for people to stay motivated. Then, if you're just here and you feel like you're just a number then and just replaceable. But yeah, absolutely. Communication is the key to everything, I think.

Researcher: And then sort of leading on from that again against, you know, working in this inquiry kind of based way, do you think the data is important in that sort of sense? You know, gathering data, gathering information?

Participant D: Yeah, I think it helps, definitely. Because you can see your, you know, how things are being affected, whether it's good, bad, it's an easy way to see, um, how things are, you know, is this working? Well clearly not. So we'll change it and vice versa. You know, if something's working, keep doing it. Keep improving it.

Researcher: Next one then, inquiry habit of mind. So it's basically thinking in a questioning way. Do you believe that to be important in your role in the school?

Participant D: Yeah, I think so. If you're not seen to be asking questions, the children don't, you know you're modelling? Almost, aren't you? I think you have to even something as simple as reading a story to them. A few question. Oh, I wonder what's going to happen next. I wonder why that happened. You know, things like why are they upset and whatever. I think they begin to pick up on those things then.

Researcher: In terms of that then do you think the school gives enough opportunities, distributed leadership opportunities? So in a nutshell, that just means other people get a go at leading their own little bit. I suppose in a sense then, you know, it doesn't have to be formal. Do you think there's opportunities for people to, you know, to, to lead in different ways?

Participant D: I think, you know, the way things are, we all have to step in to roles sometimes that perhaps we wouldn't normally do. You know, we cover each other, but again, that comes down to the team mentality, isn't it? And I think it's one of those things where, um, if you're not and especially, you know, if you're not given those opportunities before perhaps you're put into that position, um, you can be floundering quite a lot. So I think, you know, you've got to have, we are given those opportunities. Um, you know, it's almost well, not daily, but, you know, daily, weekly, you're given the opportunities to take lead of something, to take charge of something, whether it be taking a little focus group somewhere or whether it be taking the class, you know, it's there, isn't it? We don't as you know, I'm not going to go any higher than that. But that is my role is in and around my role. Whereas you know the likes of yourself you know you'd be.

Researcher: It can be role dependent. Yeah definitely. And then do you think then from that then you know that that you know, either you yourself then you know, that kind of idea. You know, does a

distributed leadership give you a chance to have ownership, ownership of whatever you're doing or someone else is doing or you're seeing someone else's role?

Participant D: Yeah, I think so, yeah, to a degree. Again, you know, we can't be silly about it. No, I think, you know, I'm not a forest school leader, so I'm not going to go and lead a forest. No, but yeah, things like that. Certainly again in and around my role. Yes, and I'm sure, you know, there's the opportunity to run a club as well. So that would be another opportunity for someone in my role. If I really wanted to run a creative club or whatever, the opportunity is there for me, so I could, could, could. Yeah, you could do.

Researcher: So then we talked about two things there, an inquiry based working or like working with like an inquiry mind and distributed leadership. Do you think there's a correlation between the two?

Participant D: There's got to be, isn't there.

Researcher: Do you think there's a relationship between inquiry based working and distributed leadership then? So, like, people have an opportunity to lead and being able to think, do you think there's a relationship between the two?

Participant D: Um, yeah. Because I think without one you can't do the other almost. So yeah, there's definitely a crossover there.

Researcher: Do you think then working that kind of inquiry based mind, do you think it gives you over time, you have the ability to improve on how you analyze data and look at information? Then do you say within your role or within the school, you know, if you think you know, like you, you're in, over time, you start to question data in different ways and look at different things?

Participant D: So it's one of those things it would become part of the process of whatever you're doing, you know, be it an intervention. Um, certainly you'd be able to read things more quickly. It is practice, isn't it, with things like that, I suppose the more you see in the data, the quicker you can analyze it I suppose. But again, you know, limited in my role again, it would be pretty much things like that. Interventions and the spreadsheets.

Researcher: Yeah. Yeah. Okay. Last couple of questions then. Do you think, um inquiry based working then is more suited to an individual or collective inquiry then?

Participant D: I mean, it covers both, isn't it? I don't really know. Yeah, I think, you know, it would cover both things, wouldn't it? Because again they go hand in hand almost. So for example, I don't know if this is right, but you know, if I went out and learnt something on a course, for example, I then speak to my colleagues about it and then they may see you working collaboratively then, aren't you? You know, there's things that there's skills that we pull from each other all the time.

Researcher: Lovely. Thank you very much.

Appendix E - Participant E Interview Transcript

Researcher: So in terms of the school culture, do you think you've got a want to innovate as part of your role?

Participant E: To an extent, yes. Yeah I guess.

Researcher: There's no right or wrong answers to this. Whatever you feel and this will be completely anonymised. Do you think the school promotes an overall culture of innovation and exploration?

Participant E: Yes, definitely, because we're always being invited to join courses or putting our names forward for certain things.

Researcher: Do you think innovation and exploration has got an ability to improve people outcomes in terms of the pupils?

Participant E: To an extent, again, yes, but it depends on what knowledge you've already got prior to be in in your role.

Researcher: Do you think innovation and exploration has the ability to improve your day-to-day role within the school? So specifically, your role.

Participant E: My role as a TA. Possibly. My role for L-plan? Yes.

Researcher: Yeah, it's a different part of your role. Do you think the overall culture could improve in the school in terms of innovation and exploration, do you think? Is it an improvement to be made?

Participant E: I suppose, yes. I think there is improvement. But I also think perhaps sharing knowledge because we all go on these courses and we were meant to be sharing knowledge, especially regarding us TAs. But possibly then it would be better if there was a bigger culture for sharing whatever knowledge we've ascertained then.

Researcher: Last two questions on here then. Do you think the school encourages individual and collective inquiry to improve its outcome? So by inquiry, it could be as simple as asking a question or going further and asking a big question.

Participant E: Yeah, I think we do. Yes.

Researcher: Last one then in this section. Do you think the school could improve on its use of inquiry?

Participant E: Potentially, yes. There's room for perhaps small improvements, but overall I think we're pretty good in that department sometimes.

Researcher: Next section. Everything I'm going to talk about is all about comparing, talking back to an innovative and explorative culture. So the first kind of questions are two in one. Do you think you've got an autonomy within your role? And as a result, does that help you make your own decisions, or have you got the ability to make your own decisions.

Participant E: With L-Plan yes. Within the TA role? Potentially not quite so much then.

Researcher: Do you believe it's important to have autonomy in your role?

Participant E: To an extent a little bit, yes. I know you will always listen to what I say, but possibly that's not always the case within the TA role for others, I'm not sure.

Researcher: Do you feel collaboration is important to have an innovative and explorative culture?

Participant E: Definitely.

Researcher: Do you think we spend enough time collaborating?

Participant E: Possibly not. No.

Researcher: Do you think it's important to take risks? You know, if you've got an innovative and explorative culture.

Participant E: Yes, yeah.

Researcher: Do you think we need more risk taking, less risk taking or the same?

Participant E: I think more risk taking perhaps.

Researcher: And do you think risk taking is important then?

Participant E: Yeah, yeah. Okay.

Researcher: Next question then, do you think the vision and values of the school support an innovative and explorative culture, the kind of vision and values of what we have as a school? Do you think that's supported?

Participant E: I think so, yes.

Researcher: Thank you. This one is I've said this to everyone. Be honest. Do you think the leadership within the school supports innovative practice?

Participant E: Yeah I'd agree. Possibly there's possibly room for slight improvements, but I would agree that you do support it. Yes.

Researcher: Do you feel as if there's an incentive to innovate as part of your role? So that could be, financial professionally or, you know, could be a number of things. Incentives could mean lots of things to different people.

Participant E: I'm not quite sure. Say it again.

Researcher: Do you think you've got an incentive to innovate within your role?

Speaker3: No. Not really.

Researcher: Do you think the school learns from its mistakes in a positive way?

Participant E: Yeah, I think so, yeah.

Researcher: Do you think the school uses outside influences to support innovative practice?

Participant E: Yes. Yeah.

Researcher: How important do you believe communication to be?

Participant E: Very important.

Researcher: And then last one, and this is kind of loaded. Despite the financial restrictions placed on school today, do you think the school apportions enough money and resources to innovate in?

Participant E: Well, the school has got limitations, really, hasn't it? Depending on the governors and your financial situation for the year. So you've got your hands tied depending on what's going on from one year top the next.

Researcher: Last section then. This is all about inquiry-based working basically. So you know, as we said before, asking a question or questioning for improvement. Do you believe inquiry-based working is good for education change?

Participant E: Definitely. Yeah.

Researcher: Do you believe data is important in regard to it? Or gathering data?

Participant E: It is important. I would agree, but not perhaps strongly, strongly agree because perhaps data can sometimes take too much of a pivotal role. Possibly you might get too caught up then with just data alone.

Researcher: Do you believe having an inquiry habit of mind is important within your role? So, you know, being inquisitive, being asking questions and curious.

Participant E: Yes, I strongly agree with that. I think the more inquisitive you are in your role as well, that passes on with some of the children because if you're inquisitive, they see that you're inquisitive and they will follow suit, perhaps, and develop that ability and the younger they are to develop that, the better for them then, isn't it?

Researcher: Thank you. Next question then is about distributed leadership. This could be formal or informal and it doesn't have to be with a title as such. Do you think the school provides opportunities for distributed leadership opportunities?

Participant E: Yeah.

Researcher: Do you think your role allows opportunities for distributed leadership or for you to take ownership?

Participant E: To an extent, yes.

Researcher: So we've talked about distributed leadership and inquiry based working. Do you think there's a correlation between inquiry-based working and distributed leadership?

Participant E: Yeah.

Researcher: Do you think an inquiry-based working approach over time has the ability to supposed to help people analyse data to improve upon how they analyse data over time? You know, if you're using that kind of approach.

Participant E: Say it again please.

Researcher: Do you think inquiry-based work using an inquiry based working approach has the ability to improve an individual's ability to analyse data over time?

Participant E: Yeah, yeah.

Researcher: Last kind of questions. These are all in one. Do you think an inquiry-based working approach is suited to individual or collective inquiry or both or neither?

Participant E: Collective, but it can be individual as well.

Researcher: And are there other do you think there's opportunities for the both of them or more than one than the other?

Participant E: More perhaps collective than as individual.

Appendix F - Participant F Interview Transcript

Researcher: So first of all, then thinking about the overall kind of culture of the school, do you feel you want to innovate as part of your role?

Participant F: Yes.

Researcher: Do you think the school promotes an overall culture of innovation and exploration?

Participant F: Yes. We always get asked about how we'd like to change or if you've got any ideas. So like, I still have my ideas for library and I'm looking ways of getting more books and trying to encourage the children in reading. We've already spoken about expanding the reading, expanding the library. You've got ideas with the wellbeing and everything like that. So, you know, I'm a TA, but you're taken on board. Yeah, the school has taken on board that factor. So, you know, it doesn't matter what where you are in the school. Whatever ideas we have that's taken on board and you're willing to, like, go with that and expand on it.

Researcher: That's great. Thank you. In thinking about innovation and exploration, do you think that's got the ability to improve pupil outcomes?

Participant F: Yes, definitely.

Researcher: Do you think that has the ability to improve your day to day kind of role in what you're doing?

Participant F: I think so and I think it will benefit everyone really, I think when you come in, if people are willing to listen to you and you feel like you're more valued, you want to stay. If you don't feel valued and you don't want to come and you don't want to come to work, then people are more inclined to leave and go elsewhere. Whereas if you are valued, you want to come to school, you want to come to work. So you stay, you stay longer and you have less turnover of staff then. So you know it works. It doesn't work just in school it works anywhere.

Researcher: So the next question then kind of leads on from that then, do you think the school culture around innovation and exploration could improve?

Participant F: I think it could always improve. I don't know how. The school's improved loads anyway. Since we've got the music room, we never had that before. I mean, I think if we had this back when my boys came here, it probably would have helped my boys. Do you know what I mean? I've known this school 19 years. You know. I've seen this school come on a lot in 19 years. So yeah, you could always improve. So definitely.

Researcher: Next question then. Do you think this is related to inquiry? So asking questions to improve your practice, do you think the school encourages both individual and collective inquiry to, I suppose, questioning something to improve it? I suppose in a nutshell.

Participant F: Yeah, I think it does.

Researcher: And then the last kind of question in this section then, is do you think the school could improve on how it uses inquiry to, I suppose, improve itself.

Participant F: Yeah, yeah, I think it could.

Researcher: Thank you. Right. The next section then. The next section here is about innovation and exploration, explorative culture. So basically all these things down here are related to that in that sort of sense. So the first kind of question: Do you think you've got autonomy within your own role and do you think that helps you make your own decisions? Or are you supported to make your own decisions?

Participant F: I think I'm supported to make my own decisions. I can think for myself, but if I need help or I want support, then I can go to absolutely anybody in the school and I can go and ask support from anybody and anyone's willing to help.

Researcher: Do you think it's important to have that kind of autonomy and make your own decisions within your role?

Participant F: Yes and willing to, you know, you can make your own mistakes then as well. And no one's pointing the finger at you. You know, as long as it's not a big, major, massive mistake that's going to cause anything big, it's okay. Everyone makes mistakes and you learn by those at the end of the day.

Researcher: I was going to say, do you think the school learns from mistakes in a positive way?

Participant F: Yeah, I think you have to look back and see where mistakes have been made and then work off that and then go, right, we've learned from that. This is how we improve on it.

Researcher: Thank you. All right. Do you think collaboration is important in terms of being innovative and kind of explorative?

Participant F: Yeah. I think if you get together, I mean, we're all good at getting together in small groups, and we've been good when we've all been together as a whole school, like staff wise. And, you know, thrown about ideas and then leading off those ideas. I think as a school, we're very good working off each other and then like, individually I think we're very good.

Researcher: Do you think we give enough time or do you think the school gives enough time to collaborate?

Participant F: No, I think we could do more. But there's just not the time. Especially in INSET days, we have to do training. There's set time for that, but it would probably be nice if we could, it would be nice to maybe do a bit more brainstorming. This is the direction the school is going in, do we have any ideas on how we can get the school there? Or is there anything anyone specifically we would like to do or has any knowledge in to get us there? That would be nice. But you know, there's training. Yeah. It would definitely be nice if we could brainstorm ideas.

Researcher: In regard to what we were saying about mistakes before, do you think there's opportunities to take risks in the school or to take risks in what you're doing and when you're innovating?

Participant F: Yeah I think there is. I think we have to be careful with the risks we take. I think you're allowed to make certain risks. Judgment call risks. Yeah, I think you're allowed to take risks. Do you think.

Researcher: That was important then?

Participant F: I think it's important to make certain risks, it's how you teach kids. We've got to teach kids to take risks, you know, take a leap of faith. And we've got the trim trail out there. You've got to teach the kids to take a risk. And sometimes, you know, it's a silly analogy. They're taking a risk when they use the monkey bars. You know, you've got to teach them.

Researcher: Do you think the school's vision and values of the overall school support that?

Participant F: I think so, yeah.

Researcher: Do you think there's an incentive to innovate in the school? It could be monetary. It could be professional development. Why do you think, is there an incentive to innovate?

Participant F: I don't know. I'm not sure if there is an incentive. Not professionally. Couldn't think of one off the top of my head. I know we get our training, but whether or not that's enough because the training is what you have to do. Whether there's an incentive to be like, oh, if you do this. I can't think of anything where there is like a great incentive.

Researcher: Do you think the school uses outside influences to support this innovative practice?

Participant F: We could probably have a little bit more which would be nice, but then that would probably need funding and then that would probably come from the budget. And you know, that's not great. We probably don't have the budget for that. But it would be nice if we could get more people in. We've got a studio now. It'd be great if we could get some people in that, you know, do studio work

where we can get the kids in, go right, this is how you put music together, and I know you can do that, but do you know what I mean? Like how you do a band.

Researcher: It is in the plan. It is in the plan. It's one of my jobs. But yeah.

Participant F: You know what I mean, don't you? Where you get certain people in and that do different things. I know we've had people come in for like drama and different things like that. You get these new kids come in and they say they've got these different hobbies and interests and you think, oh, okay. Then just like pull the kids in a little bit and get their interests in.

Researcher: Right. Last two questions in this section then. This is quite a long section. How important do you believe communication be to be in relation to innovative practice then? So to be innovative do you think communication is important?

Participant F: It's at the top. Definitely. If you haven't got communication, I don't think you've got anything else. If we're not talking and we're not communicating then no one's going to know.

Researcher: Last one then. And this is kind of loaded in some senses because the caveat is despite financial restrictions, do you think the school apportions enough money to innovative practice? Do you think there's enough money put towards that, or do you think there could be?

Participant F: If we had the budget, it would be great if we could put more money to it if we had the budget. But we don't. So I think we put what we can as a school with what I think we do well with what we've got. I think if we had the money we'd put more. But I think what we do with our budget, we do well.

Researcher: Thank you. Last section. This section is based all around kind of inquiry-based working. So, in a nutshell it's about asking questions and finding an answer in so many senses. Do you believe that inquiry-based working helps educational change?

Participant F: Yes.

Researcher: Next one. Do you believe thinking about this is about data? Do you think the use of data supports inquiry-based working?

Participant F: Yeah, because you get information. So when you look at it, it'll tell you a certain amount of information.

Researcher: Thank you. Thinking about an inquiry habit of mind, and this is just a way of thinking, I suppose. Do you think it's important to have an inquiry habit of mind in your role?

Participant F: I think so. That doesn't mean I'd be able to work it out personally. I'd have to come to you for that.

Researcher: But you're asking the question.

Participant F: Yeah, I think if the data was there and someone was able to say, oh, I think it would help my job to know and be able to look at data to turn around and say, oh, okay. Then this could be anything. It would show me certainly where kids needed more help and where I could put the input in more.

Researcher: So the next one is about distributed leadership. And just to clarify, that just basically means that not one person is running the show in some senses, it's a group of people. So does the school provide distributed leadership opportunities to different people?

Participant F: Yeah, lots of people have lots of different jobs in this school in different ways.

Researcher: Do you think your role within the school allows you to take a kind of distributed leadership role and ownership of what you're doing?

Participant F: Yeah I have an ownership of what I do. I wouldn't say I'm a leader. I don't think I'm a leader, but I certainly own what I do, like, with thrive. I think I own what I do around the school, but yeah, not the leader bit.

Researcher: Next question then. Do you think there's a correlation between inquiry-based work and so asking questions and distributed leadership. Do you think there's a relationship between the two?

Participant F: I think so. I think they marry quite well together.

Researcher: Do you think using an inquiry based approach to thinking about things, do you think over time, your ability to analyse data would improve? Or do you think that's something that can improve over time?

Participant F: Probably with help. Probably. I'd hope so.

Researcher: Last three questions. Do you think inquiry-based working works better in an individual capacity or collective, or could even be both?

Participant F: Probably both. I think personally maybe collective. In a collective way.

Researcher: So these are kind of linked. Are there opportunities for individual inquiry in the school to go out and find out your own things?

Participant F: I think so yeah, definitely.

Researcher: Are there opportunities for collective inquiry?

Participant F: Yeah, always.

Researcher: Thank you. Excellent.

Appendix G - Participant G Interview Transcript

Researcher: The first question is, do you feel as if you want to innovate as part of your role?

Participant G: Oh, absolutely. Having worked in the classroom and as deputy head like yourself, you know, in innovation within education is just paramount to future progress and future success, particularly now with the curriculum that we're currently working with, curriculum for Wales, and the elements of that which allow members of staff to have more autonomy. And the ideas behind the conceptual learning innovation in relation to how we teach and how children learn is so important. And the way in which we do that is going to change over the coming years. I like to develop professionally as well and incorporating opportunities for action research which will improve on, help us to improve and move forward and therefore innovate more and move forward as a school is paramount. I think as part of where we are in education at the moment.

Researcher : Thank you. so leading on from that, you've kind of answered a bit of that. Do you think the school promotes a culture of innovation and exploration?

Participant G: Yeah, I do. Funny enough, when I was answering your questions on your survey, some of these I put strongly agree. And some of them I put agree. Not because I think from a senior leader's perspective, you and I strongly agree with most of what was in that questionnaire. But I think we're not quite where we want to be in relation to innovation yet. And I think that is partly due to us being a new leadership team and establishing where we move forwards as a leadership team and also

looking at how we can plan those opportunities for innovation through the curriculum, through professional development, through research, through further education, you know, whatever it may be. But that will take a little bit of time for us to get our heads around in order to plan that effectively into what we do here.

Researcher : So leading on from that, then I presume then asking the question, innovation aspirations and the ability to improve pupil outcomes. Is that something you would agree with?

Participant G: I would yeah definitely.

Researcher : You have kind of answered the next question in terms of improving the school innovation and exploration in the school. The last kind of question here is, do you think having an inquiry-based approach, within the school, is something that the school's got an inquiry-based approach to?

Participant G: I think we've got pockets of it as a school. I think, having done that level seven inquiry-based project a few years ago with the university myself, I particularly saw the benefits of that. At the time that was around, early years pupils being able to identify how they were successful in their learning. So it was the introduction of oh so and using the talking tins and things, and that had a significant impact at the time. And then of course, other strategies come in and some things get maybe lost a little bit. I think we need to be better at identifying through inquiry, through research, through implementing things in school, identifying what is really beneficial and therefore moving forward with that and keeping that as part of our nuts and bolts, really, of what we do, and then continuing to improve on that by further innovation, further inquiry and trying things out and equally being as honest and saying, actually, this is lovely, but is it having the impact that we need? No. Right. Let's put that aside. So it's certainly something that I think we need to continue to incorporate into school life. And as I said, there are pockets of that going on. And it would be lovely to see more of that through the school.

Researcher : So leading on from that. You mentioned about individual inquiry. Do you think there's both opportunities for individual and collective inquiry in the school?

Participant G: I think there are possibly less opportunities for individual inquiry. And that's unfortunately down to budget constraints enabling people to access maybe those further educational opportunities. The one through the university allowed three members of staff at the time to go, and it was 50% of the teaching staff, it was amazing. But those opportunities don't come up all the time. But equally, what I think we need to do is encourage staff to look for those opportunities themselves as

well. We can't as a school always be the ones putting the ideas into people's heads. You know, they need to have that drive to move forwards, that desire to further improve themselves because then that will feed back into school and conversations you and I have had around maybe changing the way in which performance management is done. If we're able to do that next academic year, I think that would allow us as a school to have for individuals to have much more opportunity to complete that inquiry-based project and have an impact on whichever area they've identified they want to look at. So I think that would be a really positive move in the right direction and a real shift in the way performance management is done now. Performance management links to the school priorities, it links to a personal, but it's very, almost like a tick box, isn't it? You know, whereas having that open opportunity to research and do an act, you know, do that active research in school and evaluate the impact, I think would be really, really beneficial.

Researcher : So the next section here is about innovative and explorative culture. So all the things are basically against that. Do you think so? That's kind of what you're reflecting upon. The first kind of questions are linked together. How much autonomy do you think you're given within your role. And do you feel it's important to make your own decisions?

Participant G: So obviously in the role of head teacher, ultimate decisions lie with me. But I firmly believe in having that collaborative approach to what we do and that the professional conversation that we have as a senior leadership team and with the teaching staff and then the whole staff, including the TAs, is absolutely vital. We do have much more autonomy in education now in order to design a curriculum that is really suited to the needs of our pupils that we have in front of us and what we what may be a focus in one class may not necessarily need to be a focus in another, because you've got sort of different clientele with you. But within my role, I still need to be very mindful of the statutory things that we must cover and those standards. So having those high expectations, sometimes it can be a little difficult for me personally because I'm possibly giving people answers maybe that they don't necessarily want. So I have to be very mindful of not dampening enthusiasm and making sort of if somebody comes to me with an idea which has got potential, maybe guiding it in a different way, that may have more impact in an area that we identified as a school.

Researcher : Do you feel as if we have enough time in the school to collaborate in regard to innovation and exploration?

Participant G: No. within the school, with your teaching commitments, with the extracurricular activities that are run, weekly ADD sessions, which are I feel much more effective this year. I've had much more focus around working collaboratively on curriculum progression assessment and which are all, you know, really important focuses within education in Wales. But it's never enough. And we need more opportunity to have those discussions. Inset days are really precious and quite often filled with sort of statutory obligations that we have to do. And then that reduces the time that we have to be

able to spend time on the really important things and those working collaboratively on approaches that we want to implement here.

Researcher : Thank you. So the next three questions a bit around taking risks. The first part is do you think there's opportunities to take risks? How important do you think risk taking is? And then do you think there should be more or less or similar opportunities then?

Participant G: So I think the new curriculum certainly allows us to make much more, take many more risks than we have been historically. Um, but with that type of risk taking also comes other risks, you know, are we doing it effectively? Are we giving the pupils the broad balanced curriculum that they need? Are we addressing the broad purposes? Um, so I certainly think that curriculum for Wales is allowing schools to be much more risky in, in the way that they approach learning and, you know, with risk taking. It has to come. Discussion and reflection and evaluation about, you know, which is working and which is not. What was the extra bit you asked?

Researcher : It was about more opportunities or less opportunities.

Participant G: I certainly think more opportunities would be beneficial, but more opportunities could potentially have an impact on how effective what we're doing is being done. You know, because you're adding in something that you may spend some time on that may then not have the benefit you were hoping for yet without trying it and taking the risk, you know you're not going to know. So they sort of go hand in hand. You know, I think that staff have been given much more opportunity to take risks with the curriculum that they deliver in each class. And that's been very effective in lots of classes within different concepts for different reasons. And we've learned from that as a team about which risks have worked and maybe some which have not been quite so successful.

Researcher : Thank you. So the next one, thinking about the school's thinking about that culture of innovation and aspiration. Do you think the school's visions and values support that?

Participant G: So when I answered your questionnaire, I think that I either chose the agree or maybe the middle one, I can't remember. That wasn't because I think our vision is poor, but I certainly think our vision needs refining. It needs updating because I don't think that when it was written, I don't think we had enough knowledge about what a values education looks like. And now that we are working much more around who we want our learners to become and which values and attitudes and attributes they need in order to become those people through the rest of their lives. I think our vision certainly needs updating to reflect that. I think it's a good starting point, it's a good basis, but we've come quite a way as a school and have lots of plans moving forward. And I think our vision will then

be able to be much richer once we put into it what we've learned over the last year and continue to work on.

Researcher : I suppose this refers to you. Do you think the leadership within the school supports innovative practice?

Participant G: I would hope so. I would hope that staff feel that they could come and speak with me and, you know, ideas that they have in relation to improving the curriculum. And, you know, in new innovative ideas we would discuss and put in place. I like to feel that I'm approachable and would give things a go. But at the same time, if as leaders we also feel that actually no that's not right, we might have to have that conversation which is quite a tricky one.

Researcher : Thinking about incentives, do you think there's an incentive to innovate within your role and within the role of others.? Incentives could be financial. It could be professionally.

Participant G: Yeah. I, I think within my role there are certainly incentives to innovating because the more that we do as a school and move forward in areas that maybe other schools are not yet making progress in, or we excel in areas where others may be are, you know, finding difficulty that helps us to gain that credible reputation within the local authority. And then that allows us to be recognised for that. That can sometimes come with implications then, because if you are particularly good at something, you can then almost be that victim of your own success where people know you're good at that. So your numbers increase and that has that has more difficult impact on the budget. Within our role as a school, I certainly think it helps us to move, to become continually thinking about moving forward. We have to be innovative to move forward and make progress. And, like I referenced earlier, what works in your class this year with a different group of learners, next year may not work at all. So we have to keep reflecting, refining and moving forward and innovating in order to improve what we're doing.

Researcher : Thank you. Thinking about mistakes. Do you think the school learns from mistakes in a positive way if mistakes are made?

Participant G: I think so. I've always had the sort of the view in things like performance management or lesson observations as a teacher, that these are not things to be worried about. These are opportunities to learn from. So yes, you put on a good lesson when somebody comes in and observes. But my view was always if I'm not doing everything I need to be doing, that's an opportunity for me to learn. So I hope that that sort of thought process is being shared with others. That monitoring and observations and things are there to help improve everybody. Reading the question again just to make

sure. Within my role as head teacher, every day I'm dealing with something that maybe I haven't come across before. There are times already in my career where I've made a decision and I reflect on that and think, you know, next time I wouldn't have done it that way. That's hard when you're the person who is ultimately responsible for all of the decisions that are being made. You've then got to sit back and think, okay, well, I've made that decision, but is it having the impact that I wanted? No. So then you have to put processes in place to maybe rectify that and improve it. But I think being able to identify areas that you need to improve is vital, because if we can't do that as a school, we can't then move forward to improve. So it's a really important skill to have, and certainly something that I would look to gain more knowledge about.

Researcher : Thank you. The penultimate question is do you think the school uses outside influences to support innovative practice?

Participant G: Yes, particularly in relation to the curriculum, I believe. I think that our staff, 50% of our teaching staff, had the opportunity to participate in the teaching and learning pioneer program, which I think has had a significant impact on the curriculum that we deliver in this school. The people involved have also had that significant impact because they were members of staff who were really keen to drive that new approach and to try those new things. In that respect, working alongside the local authority and trying those new innovative approaches is really beneficial. The fact that all three of those members of staff were interviewed for positions within that team, I think reflects how well the members of staff participated and were recognized by those outside agencies for the work that they're doing. So it's really important that we continue to work alongside them. I think something that I'm possibly a little bit fearful of is that if they think we're doing really, really well, they might leave us alone a little bit too much, because things in education change so quickly that it would be really good for us to have that regular contact with that team, so that we're not missing out, maybe on new ideas and strategies that are coming from Welsh Government, which being part of a project like that allows you to have, doesn't it? Because as much as we all love to read, as much as we all love to keep up with what's coming out from Welsh Government, everybody's got busy jobs, and there's only so many hours in a day where you can dedicate time in order to keep it up to date with their releases, isn't it?

Researcher : The last question in this center section, is kind of loaded in some sort of senses. So despite the financial restrictions placed on school, do you think the school apportions enough money to encourage innovative practice?

Participant G: Oh gosh, it's a really hard one, isn't it? You know, being in a position where the budget is in the back of your mind at every opportunity, every minute of every day. And the implications of the budget that we have potentially next academic year. And following on from that, I think up until now, because we've been more financially stable, we have been able to allow or apportion money in order to offer some opportunities for innovation. I do think that that's going to

become more challenging as we move forward because of the financial situation that schools are in. I would hope that we could be as creative as possible so that whilst we're struggling financially, it wouldn't have a detrimental impact on the way in which we move forward as a school. And that may just mean us being a little bit more creative with what we've got and, you know, more utilizing more grants and funding that's out there to enhance the curriculum that we've got, things like the creative schools and accessing the grants from local companies that offer that out. I think that's going to be vital to how we move forward.

Researcher : The last section is all about inquiry-based work. And so asking a question and acted upon it, that could be formally through a more formal project or informally just in day-to-day work then. So the first question, do you believe that inquiry-based work is good for educational change?

Participant G: Yes. Having been through that inquiry-based approach myself within the classroom as a class teacher and seeing the positive impact it had on raising pupils' independence skills. And at such a young age, at the age of three and four. It was really interesting to spend that time researching, reading the literature behind it and then putting into practice that inquiry approach. In that instance, it was positive. In some instances it may not be positive, it may be negative. but then that's also extremely beneficial because that helps us shape as a school, approaches that work and approaches that don't. So yes, I do think it's really important that we think about things in an inquiry-based way.

Researcher : Do you think the use of data is important for inquiry-based working?

Participant G: This one took a lot of time thinking about on the questionnaire actually, because data is important, data does allow us to have that snapshot of information to make judgments on, to make informed decisions around. But it can't just be data based. So whilst data is important and is valid, it's not necessarily the be all and end all of what we do. It is important as part of an inquiry project. But I do think it needs to be carefully balanced with other forms of evidence gathering.

Researcher : Next question then. How important do you believe an inquiry habit of mind is within your role? So thinking with curiosity, thinking in different ways.

Participant G: I think it's really important in my role. I just think that the challenges of the role possibly prevent opportunities to spend more time thinking and doing in that way because that approach requires time to think and time to read and time to plan what you need to do. I think the demands of my role in particular, I'm fortunate I haven't got a class full of children to plan for every night, every weekend. For us within education, I think the increasing demands put on education, not just to educate children, we're picking up more sort of social and emotional difficulties, doing so

many more roles than any of us possibly went into education thinking we were doing. That's making that type of approach more challenging.

Researcher : The next kind of question is thinking about distributed leadership. So that could be formal. That could be informal. Do you think the school offers opportunities for distributed leadership? And do you think that's important to give people ownership?

Participant G: Yeah. So being a small school, distributed leadership is quite challenging because, yes, there are senior leaders in the school, head and deputy. And this year is the first year we've had a TLR member appointed. We are fortunate that we've got staff within the school who aspire to be leaders themselves and aspire to move onto further points within their career. So they're willing to volunteer on a leadership team. Within that context, then distributed leadership between head, deputy and TLR coaches is much easier because with those posts comes responsibility and therefore comes expectation that we share some of those leadership roles in relation to the volunteers within the leadership team. There are limitations because they are volunteering. They're not being paid for that. So I am mindful of what I ask them to do whilst I want them to develop. Yeah, I have to be thinking about the fact that they're not necessarily benefiting financially from that. So that may come through offering them time in order to complete that role. I would hope that even though the members of staff are volunteers, that they would feel that what they are involved in, in relation to that distributed leadership is allowing them to further develop their skills to move on at some point in their career.

Researcher : Thank you. The next one is kind of joining the first two bits of those questions together. Do you believe there's a correlation between inquiry based working and distributed leadership?

Participant G: I would like to think that it is because to be an effective leader, you need to be looking constantly at what's going on in the school, looking at what's working, looking at maybe what isn't working and how we can improve that. So there's a great deal of inquiry going on. I think the complexity of the roles, the leadership roles can possibly hinder that, you know, being done to its best capabilities. And I think within our role at the moment as myself, as a new head, getting to grips with everything that needs to be done means that that's proving more difficult at the moment. But I would hope that as I become more experienced within my role, that those day-to-day pressures then become things I'm used to, which will allow more time for me to look at the way in which we can use inquiry to support sort of leadership within the school.

Researcher : Do you think inquiry based working works better as individuals or collectively or both?

Participant G: I found this one hard to answer actually, as well. So, you know, in respect to the level seven qualification, I did in university, that was an individual project. And the impact was within the class that I was running. So, you know, that was beneficial from an individual perspective. But at the same time, I believe that we have as a staff being part of an almost like an informal inquiry project in relation to how we approach teaching and moving within the school through the implementation of the concept-based learning approach. So the collaboration within that and the professional dialogue that we've had and sometimes agreements and disagreements around those approaches has been really valuable as well. So I think a balance between the two would be quite beneficial.

Researcher : Do you think there are enough opportunities for individual inquiry and collective inquiry at the moment?

Participant G: I think we have more opportunities for collective inquiry. I think individual inquiry is more limited because, again, coming back to something I mentioned earlier. Individual inquiry, you are relying upon individuals to decide on something that maybe they need to look at. They may not be doing that independently. They may need a bit of guidance to identify what they need to look at. So I would hope that the sort of new approach to performance management next academic year might mean that that can become more successful for us as a school.

Section 2																		
ID	Please indicate your role within the school from the following options.	My role within the school gives me autonomy to innovate and explore.	As a result, I can make decisions within my role that enable me to innovate and explore.	I believe the ability to make my own decisions is important to my given role within the school.	I feel collaboration is important in regard to creating a culture of innovation and exploration.	Enough time is given to collaborate with others within my role in regard to innovation and exploration.	There are opportunities to take risks within my role in regard to innovation and exploration.	I think there needs to be more, less or the same opportunities to take risks within my role in regard to innovation and exploration.	Risk taking is an important part of an innovative culture.	The school's vision and values support a culture of innovation and exploration.	Leadership within the school supports innovative practice.	There is an incentive to innovate within my role.	The school learns from mistakes in a positive way.	The school uses outside influences to support innovative practice.	Communication is important in relation to innovative practice.	Despite financial restrictions placed on schools today, the school opportunities enough resources to encourage innovative practice.	Please rank the following in relation to the most and least important factors when enabling innovative practice.	Please rank the following barriers in relation to the most to least significant. Below notes what the categories could consider.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A	Teacher	Disagree	Neutral	Strongly agree	Strongly agree	Disagree	Agree	More opportunities	Agree	Agree	Neutral	Neutral	Strongly agree	Agree	Strongly agree	Neutral	Vision and values Resources Collaboration Leadership Autonomy Communication Learning from mistakes Risk taking Outside influences	Structural Economic Organisational Behavioural
B	Teaching assistant	Agree	Agree	Agree	Agree	Agree	Agree	Same amount of opportunities	Neutral	Agree	Agree	Agree	Neutral	Agree	Agree	Agree	Communication Vision and values Leadership Collaboration Outside influences Resources Autonomy Learning from mistakes Risk taking	Economic Behavioural Organisational Structural
C	Teacher	Agree	Agree	Agree	Strongly agree	Neutral	Agree	Same amount of opportunities	Agree	Agree	Strongly agree	Neutral	Agree	Agree	Agree	Agree	Vision and values Autonomy Collaboration Communication Risk taking Learning from mistakes Outside influences Leadership	Structural Behavioural Organisational Economic
D	Teaching assistant	Neutral	Agree	Agree	Strongly agree	Disagree	Disagree	More opportunities	Strongly agree	Agree	Agree	Disagree	Agree	Neutral	Strongly agree	Disagree	Communication Autonomy Resources Collaboration Leadership Risk taking Collaboration Vision and values Outside influences Learning from mistakes	Economic Behavioural Organisational Structural
E	Teaching assistant	Agree	Agree	Agree	Agree	Agree	Agree	Same amount of opportunities	Agree	Agree	Agree	Agree	Agree	Agree	Strongly agree	Strongly agree	Communication Vision and values Collaboration Leadership Learning from mistakes Risk taking Resources Autonomy Outside influences	Economic Behavioural Structural Organisational
F	Teaching assistant	Disagree	Disagree	Agree	Neutral	Strongly disagree	Strongly disagree	More opportunities	Strongly disagree	Neutral	Neutral	Neutral	Neutral	Agree	Strongly disagree	Disagree	Autonomy Learning from mistakes Outside influences Collaboration Communication Leadership Resources Risk taking Vision and values	Structural Behavioural Organisational Economic
G	Teacher	Agree	Agree	Agree	Agree	Disagree	Neutral	More opportunities	Agree	Agree	Agree	Agree	Agree	Disagree	Agree	Disagree	Vision and values Collaboration Resources Communication Autonomy Risk taking Outside influences Learning from mistakes Leadership	Behavioural Structural Organisational Economic
H	Teaching assistant	Agree	Agree	Agree	Agree	Neutral	Agree	Same amount of opportunities	Agree	Agree	Strongly agree	Agree	Agree	Agree	Strongly agree	Agree	Leadership Risk taking Vision and values Learning from mistakes Resources Communication Autonomy Collaboration Outside influences	Economic Structural Organisational Behavioural
I	Teaching assistant	Agree	Agree	Neutral	Agree	Neutral	Disagree	More opportunities	Agree	Agree	Agree	Agree	Agree	Agree	Strongly agree	Agree	Autonomy Vision and values Communication Collaboration Resources Learning from mistakes Risk taking Leadership Outside influences	Structural Economic Behavioural Organisational
J	Teaching assistant	Agree	Agree	Agree	Agree	Neutral	Neutral	More opportunities	Agree	Neutral	Agree	Neutral	Neutral	Agree	Agree	Agree	Autonomy Risk taking Learning from mistakes Vision and values Communication Collaboration Resources Leadership Outside influences	Structural Behavioural Organisational Economic
K	Paid member of the Senior Leadership Team	Agree	Agree	Agree	Strongly agree	Agree	Agree	Same amount of opportunities	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Vision and values Collaboration Communication Autonomy Leadership Outside influences Resources Learning from mistakes Risk taking	Economic Behavioural Organisational Structural
L	Paid member of the Senior Leadership Team	Strongly agree	Strongly agree	Agree	Strongly agree	Agree	Agree	More opportunities	Agree	Agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Agree	Vision and values Collaboration Autonomy Communication Leadership Learning from mistakes Risk taking Resources Outside influences	Organisational Behavioural Structural Economic

Section 3

ID	Please indicate your role within the school from the following options.	The school provides opportunities to develop an inquiry habit of mind.	The school allows distributed leadership opportunities.	My role within the school allows me to take ownership through distributed leadership.	Distributed leadership is important in relation to inquiry-based working.	There is a correlation between inquiry-based working and distributed leadership.	I have the ability to read, understand, analyse and interpret data.	An inquiry-based working approach has the ability to improve an individual's ability to analyse data over time.	An inquiry-based working approach is more suited to individual or collective inquiry. Please select below.	There are opportunities within the school to conduct individual inquiry.	There are opportunities within the school to conduct collective inquiry.
A	Teacher	Neutral	Agree	Neutral	Agree	Neutral	Agree	Agree	Collective	Neutral	Neutral
B	Teaching assistant	Agree	Agree	Neutral	Neutral	Agree	Agree	Agree	Individual	Agree	Agree
C	Teacher	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Individual	Strongly agree	Agree
D	Teaching assistant	Disagree	Neutral	Disagree	Agree	Agree	Agree	Agree	Collective	Agree	Agree
E	Teaching assistant	Agree	Agree	Agree	Agree	Agree	Disagree	Neutral	Collective	Agree	Agree
F	Teaching assistant	Agree		Strongly agree	Strongly agree	Neutral	Strongly agree	Neutral	Collective	Strongly agree	Agree
G	Teacher	Neutral	Agree	Agree	Agree	Agree	Agree	Neutral	Individual	Neutral	Neutral
H	Teaching assistant	Neutral	Agree	Agree	Agree	Agree	Neutral	Agree	Individual	Agree	Agree
I	Teaching assistant	Agree	Agree	Neutral	Neutral	Agree	Agree	Agree	Collective	Agree	Agree
J	Teaching assistant	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Collective	Agree	Agree
K	Paid member of the Senior Leadership Team	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Collective	Agree	Agree
L	Paid member of the Senior Leadership Team	Agree	Strongly agree	Strongly agree	Strongly agree	Agree	Strongly agree	Strongly agree	Collective	Agree	Agree