An investigation into the methods of Student Centred Learning
used in the primary classroom and the benefits that
Student Centred Learning can have for students.

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Abstract

While there has been a lot of research carried out internationally on SCL, there has been little or no studies carried out in primary schools in Ireland and in specific, Co. Donegal. This is an exploratory project which aims to address this gap in literature. The literature review identified what theorists have said about SCL. It also looks at previous studies carried out on SCL.

The research question for this dissertation is "What methods of SCL are used in the primary classroom and what are the benefits of SCL for students'? To help me in answering this question, I have set out four objectives: to establish what Student Centred Learning is; to find out what methods of Student Centred Learning are being used in primary school classrooms; to find out what the benefits of Student Centred Learning are for students and to find out what methods of assessment teachers feel are important for SCL.

To carry out my research I sent out questionnaires to 400 teachers in primary schools in Co. Donegal. The research found that teachers in primary schools in Donegal use a wide variety of SCL methods. These include paired work, group work, free play, structured play, inquiry based learning and activity based learning. It also found out what benefits teachers feel SCL have for students. Some of these include increased self esteem, motivation, increased interest in learning and deeper learning.

While the research found mostly positive facts, there is still room for improvement with regards to SCL in the primary classroom. In the final chapter of this dissertation, I set out some recommendations for improving SCL in primary schools, such as improving policies on SCL and letting students have an input into the decision making of what they learn and how they learn.

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Chapter 1: Introduction

Kember (1997) states that there are two broad types of teaching: Teacher Centred Learning (TCL) and Student Centred Learning (SCL). Harden & Crosby (2000) describes TCL as a focus on the teacher transmitting knowledge to the student. Whereas, they describe SCL as focusing on what the students learn and how they learn it. SCL is based on the idea that the students are actively involved in their learning and that they are 'doing'. Table 1, from O'Neill & McMahon (2005) shows some differences between TCL and SCL.

Table 1: Differences between Teacher-Centred and Learner-Centred Learning.

Teacher-Centred	Learner-Centred
Focus is on instructor	Focus is on both students and instructor
Focus is on language forms and structures (what the instructor knows about the language)	Focus is on language use in typical situations (how students will use the language)
Instructor talks; students listen	Instructor models; students interact with instructor and one another
Students work alone	Students work in pairs, in groups, or alone depending on the purpose of the activity
Instructor monitors and corrects every student utterance	Students talk without constant instructor monitoring; instructor provides feedback/correction when questions arise
Instructor answers students' questions about language	Students answer each other's questions, using instructor as an information resource
Instructor chooses topics	Students have some choice of topics
Instructor evaluates student learning	Students evaluate their own learning; instructor also evaluates
Classroom is quiet	Classroom is often noisy and busy

SCL stems back to as early as 1905 and is credited to Hayward. In 1956, Dewey developed Hayward's work in his theory on Humanist Views, which discusses self-direction and reflective learning (Dewey 1916; Boone et al. 2002). Dewey (1916) argues that education and learning are social and interactive processes. He believes that students thrive when they

are allowed to experience and interact with the curriculum. He also argued that if students are presented with the curriculum in a way that allows them to relate it to prior knowledge and experienced that they have gained, then they will develop a deeper connection with the new material they are learning (Dewey 1916). Problem-based learning and activity based learning are two examples of Dewey's work that we see in classrooms today. The expansion of SCL into a theory of education in the 1980's is credited to Carl Rogers. Rogers believes that student's perceptions of the world are important and relevant. He feels that students must have a choice in their learning and that they should be allowed to have an input into their learning (Hacksaw 2008).

SCL has been linked to several theorists. Piaget and his theory on Developmental Learning or Cognitive Development is based on the idea of the student being an active learner. He believes that students learn by finding things out for themselves (Cardwell et al. 2000). Knowles and his theory on Self-Directed Learning focuses on students being responsible for their own learning, thus moving towards independence (Cardwell et al. 2000). Vygotsky's (1978) Social–Cultural Constructivist theory and its extension by Bruner is built on the premise that students construct their own knowledge. Teachers act as facilitators, guiding their students towards learning. Students develop their own ideas and outcomes based on the guidance of their teacher (Evans 2001). This is the bases of what SCL is all about. The following chapter on Literature Review will describe the idea of SCL and the theorists and theories behind SCL in more detail.

Lea et al (2003) outlines the elements of SCL as follows:

- Student should be active rather than passive.

- The importance of deep learning and understanding.

- Increased responsibility for students.

- Interdependence between the teacher and the learner.

- Importance of learner-teacher relationship.

- The importance of reflection for both the teacher and the learner.

1.1 Research Question and Objectives

The aim of this dissertation is to investigate 'What methods of SCL are used in the primary classroom and what are the benefits of SCL for students'? To help me in answering this question, I have set out four objectives:

1. To establish what Student Centred Learning is.

2. To find out what methods of Student Centred Learning are being used in primary school classrooms.

3. To find out what the benefits of Student Centred Learning are for students.

4. To find out what methods of assessment teachers feel are important for SCL.

It is my hope that, through this research question and the four objectives outlined above, that I will develop a better understanding of SCL, the methods that are used in primary schools and the benefits that SCL has for students.

1.2 Rationale

I have decided to investigate SCL, as I feel it is a vital part of teaching in our schools today. Previous literature has found that there has been a huge shift in education from TCL to SCL. Educational institutes are adopting the SCL approach because it develops deep learning rather than surface learning, due to students actively participating in lessons (Race 2014). Brough (2010) highlights an 'Eight-Year Study' 1933-41, carried out in 29 American high schools and found more engagement and higher achievements in students if a SCL environment is created. (Vars 1997) discovered similar findings when studying research from the last 100 years on Student-Centred Curriculum Integration.

SCL is key to establishing a positive learning environment for both the teacher and the students (Brough 2012). Key factors that contribute to this include, the provision of a wide

range of resources, enabling the students to be active in their own learning and using a variety of teaching strategies (Dean 2001). As students have different learning styles, it is vital that a variety of teaching methods are used. Whole class teaching, paired work, group work, role play, hands on activities and using visual aids are all methods that can be used to ensure that you are teaching to the different learning styles of your students. A mixture of teacher-led and student-led activities should be used so that the students have the opportunity to use and apply the knowledge and skills they have developed (Primary National Strategy 2006).

For this research I carried out a questionnaire with primary school teachers in Donegal. I sent out four hundred questionnaires, in the hope that I would receive a high response. I am currently teaching a group of 24 students in first class. There are 14 girls and 10 boys. I am working in a large primary school on the outskirts of a large town. It is my hope that this research will improve my teaching. I hope to find out what methods of SCL are currently being used in primary schools and what benefits SCL has for students.

Although there has been research carried out previously on the topic of SCL most of the studies have been international. It was my hope, that through my research, I will find what methods of SCL are used in Donegal. This is the justification for my research. I hope that the results of my research would reflect the results of previous studies and literature to show the importance of SCL, the methods that are being used and the benefits that SCL can have for students. I hoped to develop my own knowledge, skills and understanding on the topic and apply this to my classroom in the future to enhance my own teaching and the students learning. I have identified teachers as the main audience of my research. I hope that other teachers who may read my dissertation could apply what they have learned to their own classrooms to improve their own teaching and again in turn improve students' learning. I also feel that principals of primary schools and secondary schools could use my research to gain more knowledge on the methods and benefits of SCL for their staff and students. Other people/institutes that may also gain knowledge from reading my dissertation are further education institutes, colleges, universities, the Department of Education/Minister of Education, the INTO, the TUI, the ASTI and the Teaching Council.

1.3 Limitations

There are limitations to this study. It will be carried out over a short period of time and will be relatively small scale. The larger the study, the more reliable the results will be. However, I feel that if I received a high response rate from my questionnaires, then my research project will be reliable. Kumar (2005) states, that there are several factors that can influence the reliability of a research project. These include, wording of the questions, the setting and the mood of the respondents. These are outlined in more detail in section 3.4. Having considered these factors, I feel that my project, although small scale, is reliable. I believe that if these factors were taken into consideration by other researchers carrying out a similar project, then similar results would be achieved. Another limitation to my research project is interpretation of the results. As the project is small scale, it is important not to interpret the results as having found something profound (Hacksaw 2008). The findings of a small scale study are just that, small scale. In reality, a small scale study is helping you clarify knowledge that you already have on the subject matter and hoping that it might give you some new insight and knowledge on the topic. Therefore it is important not to state that you have found out something that will change the whole educational system (Hacksaw 2008).

1.4 Structure of Dissertation

Chapter one was an introduction into the topic of SCL for this dissertation. It looked at the research question and objectives. It discussed the rationale behind the chosen topic and the limitations to the dissertation. Chapter two addresses the literature review. It will look at the background of SCL and the previous literature, theorists and studies carried out work on SCL. Chapter three addresses the research methodology. It looks at how a researcher would come to the decision about what method to use for carrying out their research and discusses the justification for the chosen method. The methodology chapter also discusses ethical issues that arose from my research and how I overcame them. It also describes the process that I had to go through in order to gain ethical clearance. Chapter Four and five discusses how I went about identifying themes from the previous literature to assist me when firstly designing my questionnaire and secondly when analysing the result. It looks at the findings of my research including all relevant charts and figures. It also analyses the research that I found from my questionnaires. Chapter Five highlights the conclusions that I have drawn from my research and also indicates recommendations for improving SCL in primary schools.

Chapter 2: Literature Review

A lot of research has been carried out on SCL and the benefits that it can have for students. Creating a positive environment, where a wide variety of teaching methods are used and where lessons incorporate SCL rather than TCL can enhance students learning and outcomes. SCL encourages deep learning which enables students to fully understand what is being taught (Scheyvens et al. 2008). Recent research found that there has been a shift in educational pedagogy from TCL to SCL. The research carried out also found that students are now being encouraged to be more active in their own learning and are encouraged to think creatively and critically (Fernandes et al. 2012).

2.1 Definition

In 2010, Attard et al. (2010) published a SCL Toolkit which formed part of project entitled *Time for a New Paradigm in Education: Student Centred Learning (T4SCL)*, in which they proposed a definition of SCL. Although this SCL Toolkit is focused on Higher Education Institutes, most of the information on SCL can be adapted to both secondary schools and primary schools. They stated that "Student Centred Learning represents both a mindset and a culture with a given higher education institution and is a learning approach which is broadly related to, and supported by, constructivist theories of learning. It is characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning, fostering transferrable skills such as problem-solving, critical thinking and reflective thinking" (Attard et al. 2010, pp 4). Given and Santa (2010) agree with what the toolkit found in that SCL enables students to become critical and reflective thinkers. They also found that SCL has four main features, "active responsibility for learning, proactive management of learning experience, independent knowledge construction and teacher as facilitators" (Given and Santa 2010, pp.16-18).

2.2 Constructivist and Social Interaction Theories

Many theorists and theories can be linked to SCL. Vygotsky's (1978) Social-Cultural Constructivist theory and its extension by Bruner show the importance of being active in your

own learning, which is a key part to SCL (Cardwell et al. 2000). Missingham and Matthews (2014) support what Vygotsky and Bruner say and found that SCL activities should promote active learning and enable students to communicate with each other. They say that this will enable students to engage in deeper learning and aid them in achieving higher outcomes.

Vygotsky's theory of Social Interaction states that students learn by interacting, not just observing, i.e. they are active rather than passive in their learning. He argues that in order for students to develop cognitively, students need the opportunity to interact with both their peers and their teacher. This is also a key part of SCL (Cardwell et al. 2000). Vygotsky discusses the importance of scaffolding. He states that the teacher should be a facilitator, guiding students towards their learning, but allowing students to develop their own outcomes. Vygotsky believes in Two Zones, the Zone of Actual Development and the Zone of Potential Development. The Zone of Actual Development is the level the child is actually on and what they can do on their own. The Zone of Potential Development is what the child could potentially do with support from both the teacher and their peers (Cardwell et al. 2000). SCL should provide the students with the opportunity to work with other students in their class, thus promoting deeper learning, higher outcomes and the ability to develop their knowledge, skills and understanding (Torenbeek et al. 2009). In my teaching, I have used these ideas of SCL and found them to be most useful. I agree with the theorist's views on SCL and feel that SCL has many benefits for the students.

Piaget developed a theory known as Cognitive Development. Piaget believes that the child is an active learner, where the child himself participates in activities. He believes that children build their own knowledge by finding things out for themselves. When a child learns things for themselves through activity based learning, they develop a positive attitude to learning (Cardwell et al. 2000). Piaget believes strongly in the idea of play. He believes that a child needs to be actively involved in learning through play in order to develop knowledge, skills and concepts about what they are doing. The idea of play and activity based learning are examples of how SCL can be incorporated into lessons (Cardwell et al. 2000). Through activity based learning and play, children are creating their own understanding of the world, gaining their own experiences and using the knowledge gained by themselves to learn new information. This all helps the children to develop a better understanding of what they are

learning. Piaget's ideas are used when implementing SCL in primary schools (Cardwell et al. 2000).

Malcolm Knowles is considered the father of adult learning theory. However, his theory can easily be related to children. He has become known for his use of the term Andragogy. Andragogy is used to describe adult learning, whereas pedagogy is generally used for child learning (Cardwell et al. 2000). SCL can be used in all levels of education, ranging from preschool age to adult learning. SCL can be seen in Knowles' ideas of andragogy and therefore andragogy should probably be the term used rather than pedagogy to describe SCL in primary schools. Table 2 from Cardwell et al. (2000) compares the differences between andragogy and pedagogy.

Table 2: Andragogical and Pedagogical Training: A Comparison

Andragogy	Pedagogy
Learners are called "participants" or "learners."	Learners are called "students."
Independent learning style.	Dependent learning style.
Objectives are flexible.	Objectives are predetermined and inflexible.
It is assumed that the learners have experience to contribute.	It is assumed that the learners are inexperienced and/or uninformed.
Active training methods, such as games and experiential learning, are used.	Passive training methods, such as lecture, are used.
Learners influence timing, pace, and location in a learner-centred approach.	Trainer controls timing, pace, and location.
Participant involvement is vital to success.	Participants contribute little to the experience.

Learning is real-life problem-centred.	Learning is content-centred.
Participants are seen as primary resources for ideas and examples.	The trainer is seen as the primary resource who provides ideas and examples.

2.3 Biggs Constructive Alignment

Biggs (2003) developed the idea of 'constructive alignment' and says that this is vital when creating SCL. He states that there are three aspects to 'constructive alignment' and that they must all be aligned in order for teaching and learning to be effective. The three aspects are learning outcomes, learning and teaching activities and assessment. He also states that feedback is a vital part of this and that it is essentially the glue that holds the other three aspects together. Attard et al. (2010) supports what Biggs found and states the learning and teaching methods/activities chosen by teachers must be the most appropriate teaching activities to enhance their students learning. Biggs (2003) and Attard et al. (2010) found that learning outcomes should be positive, clear statements that state what the students will be enabled to understand, what is expected of them and what they will have achieved. Again in accordance to Biggs (2003) and Attard et al. (2010) assessment is the third aspect that must be aligned to ensure 'constructive aligned'. They state that the assessment must be specifically linked to the learning outcomes. The assessment strategies chosen must ascertain whether the student has acquired the knowledge, skills and competences of the learning outcomes. Assessment must be aimed at showing the achievement of the students and be appropriate for their purpose. As Biggs (2003) stated, feedback is a vital part of 'constructive alignment' and holds the other three aspects together. Feedback should be carried out on a regular basis, should incorporate more formative assessment and should be focused on the learning outcomes. Assessment and feedback should be used to motivate the students and to find the gaps in their knowledge. This in turn would lead back to setting new learning outcomes and learning and teaching activities. Nicol and MacFarlane-Dick (2006) agree with Biggs and also add that the students are central to the process of feedback and should be actively involved in it. In my teaching, I incorporate Biggs (2003) 'constructive alignment'. It is vital that the three aspects outlined above are aligned as it improves teaching and learning.

2.4 Studies on SCL

A study by McCabe and O'Connor (2014) which investigated the role of the lecturer in SCL, found that teachers and students felt that SCL promotes the use of a range of teaching methods and enables students to become more active in their learning. The study found that both lecturers and students found SCL to be beneficial. They also found that teachers believed that their role was to motivate students and guide them towards their own learning. This coincides with what Vygotsky and Bruner have said. The study also found that teachers needed to provide relevant course content, learning activities and feedback to their students and that this would all help develop critical and reflective thinking in students (Gilis et al. 2008). This is in agreement with Biggs (2003) theory on 'constructive alignment'.

Kim et al. (2014) in a study on teacher's perspectives of SCL found similar findings to McCabe and O'Connor (2014). Kim et al. (2014) found that SCL is beneficial for enhancing student's engagement and development. They also found that it maximises deep learning and higher learning outcomes (Scheyvens et al. 2008). However this study found that there were challenges in incorporating SCL. They found that teachers found it difficult to decide how much support they should give their students and how much of the lessons should be independent. Students also had issues with SCL as they preferred structure and direction rather than working independently (Kim et al. 2014). In my own classroom I have found this to be the case. When working in a primary school, as teachers, we feel the need to assist our students. It is sometimes difficult to establish what amount of support they need. However it is important here to acknowledge Vygotsky's Two Zones mentioned earlier. As teachers, we should be guiding the students from zone one, what they can do on their own, to zone two, what the students can do with our support.

Johnston et al. (1991), state that one method of SCL that should be incorporated into lessons is cooperative learning. They looked at over 500 studies carried out on cooperative learning and found that it helps to develop relationships between students and their peers and the students and their teacher, improves self-esteem and mental health, motivates students to be active in their learning and creates a positive attitude towards learning. When incorporating SCL into my teaching, cooperative learning plays a vital role. Group work and paired work

enables the students to communicate their ideas to other students. It allows for deeper learning and critical thinking. Students not only have to devise ideas, but they have to share them with their peers. This involves a high level of processing and problem solving and requires the students to critically reflect on their ideas (Alexander et al. 2008).

Attard et al. (2010) in a Toolkit for SCL outlined nine underlying principles of SCL and also outlined the benefits that SCL can have for students. This will be discussed in further detail in Chapter 4 Findings and Analysis as it will help with the analysis of my findings.

2.5 Critiques of Student Centred Learning

There is much support for SCL and the benefits that it can have for students. Lea et al. (2003) reviewed several studies on SCL and found that overall SCL was effective. However, despite its popularity, SCL is not without its critics. Simon (1999) states that one of the main criticisms of SCL, is that it focuses on the individual learner and sometimes may not take in consideration the needs of the whole class. Simon (1999) believes that if every child is unique and requires different learning styles, then the general principles of teaching are nearly impossible.

A six year study was carried out in Helsinki which compared TCL with SCL. The study found that although the students developed better knowledge and study skills, the students were slower to begin their work (Lonka & Ahola 1995). Some students like to be 'taught' by the teacher and told exactly what to do. Without having the direction of the teacher, it can take them a while to work out exactly what they have to do or want to do (Lonka & Ahola 1995).

Another criticism of SCL is based on the beliefs of staff and students. Stevenson & Saunder (2002) found that students who had experienced more TCL, found SCL to be a frightening approach. In a study carried out on 1st year medical students, they found that students were suspicious of the values of SCL.

O'Sullivan (2003) found another criticism of SCL, in that there can be difficulties in implementing it. He found that some of the reasons that it might be difficult to implement SCL are, lack of resources, the belief system of students and staff, the culture of the school and staff and student's lack of familiarity with the term SCL. Lea et al. (2003) agrees with O'Sullivan's findings, that students may not be familiar with the term SCL. Lea et al. (2003) carried out a study on 48 psychology students in the University of Plymouth on student's attitudes to SCL. The study found that although the university had a policy on SCL, 60% of the students were unfamiliar with the term SCL. O'Sullivan (2003) describes SCL as a western approach to teaching and that it may not be easily transferrable to less developed countries that have a limited amount of resources and a different learning culture.

2.6 Summary of Literature Review

The literature has found that the best strategy for engaging and motivating students is SCL. Teaching methods that involve active participation from students enables the students to become more responsible for their learning. A wide range of teaching strategies including interactive, role play, paired work, group work, use of visual aids and use of games provide a rich environment for teaching and learning. As the literature states, it is important that students are provided with opportunities to critically reflect on their learning (Gilis et al. 2008). Providing students with SCL experiences enhances their intellectual, social, physical and emotional development (Cardwell et al. 2000).

Vygotsky's Social-Cultural Constructivist theory and its extension by Bruner support SCL. They highlight the importance of students being responsible for and active in their own learning. They also highlight the importance of interaction and communication between students and the teacher in order to develop cognitively (Cardwell et al. 2000).

Piaget also strongly believes in the idea of the student being an active learner, especially through play. He believes that a child needs to be actively involved in learning in order to develop knowledge, skills and concepts about what they are doing. The idea of play and

activity based learning are examples of how SCL can be incorporated into lessons (Cardwell et al. 2000).

Knowles developed a theory on adult learning but it can also relate to children. SCL can be seen in Knowles' ideas of andragogy and therefore andragogy should probably be the term used rather than pedagogy to describe SCL in primary schools. The use of Table 2 above shows how the term andragogy can relate to SCL in a primary school classroom.

Biggs (2003) highlights the importance of 'constructive alignment' and states that learning outcomes, learning and teaching activities and assessment must all be aligned for effective SCL and teaching to take place. Attard et al. (2010) also backs up what Biggs says and shows the importance of ensuring that students have a say in deciding the learning outcomes, the teaching methods and the assessment strategies.

While a lot of research supports SCL, there are also some critiques of it. Simon (1999) believes that if every child is unique and requires different learning styles, then the general principles of teaching are nearly impossible. Lonka & Ahola (1995) found that some students prefer to be teacher led and that without having the direction of the teacher it can take some students a while to work out exactly what they have to do or want to do (Lonka & Ahola 1995). O'Sullivan (2003) found that there can be difficulties in implementing it due to, lack of resources, the belief system of students and staff, the culture of the school and staff and student's lack of familiarity with the term SCL.

SCL provides students with the opportunity to become involved in their own learning. This helps to develop their knowledge, skills and understanding (Primary National Strategy 2006). SCL enables the students to be active, to engage with their peers and teacher and to experience a wide range of teaching strategies. This enables the students to learn to a deeper, more complex level and achieve higher learning outcomes (Scheyvens et al. 2008).

As outlined above, there has been a lot of research carried out on SCL. However, most of the studies were international. I have not found studies that have been carried out in Ireland, and more particularly in Donegal. Therefore I have identified this as a gap in the literature and this is justification for my research. I wanted to find out what methods of SCL are being used in Donegal and what teachers think the benefits of SCL are for their students. I hope to use the findings of this research to enhance my own teaching and the learning of my students.

Chapter 3: Methodology

This chapter will explain the methodology that was used for this research. In order to determine what methodology to choose, I had to look at my research question and objectives to determine exactly what I was trying to find out. I used the 'Research Onion' developed by Saunders et al (2012) for considering my research methods.

3.1 Research Considerations

The 'Research Onion', illustrated in Table 3, provides a framework of the stages one needs to go through in order to carry out research effectively. This helped me to systematically organise the research methodology. This 'Research Onion' was developed for business. However, Bryman (2012) states that it can be easily adapted for other purposes such as educational research.

Table 3: Research Onion (Saunders et al. 2012)
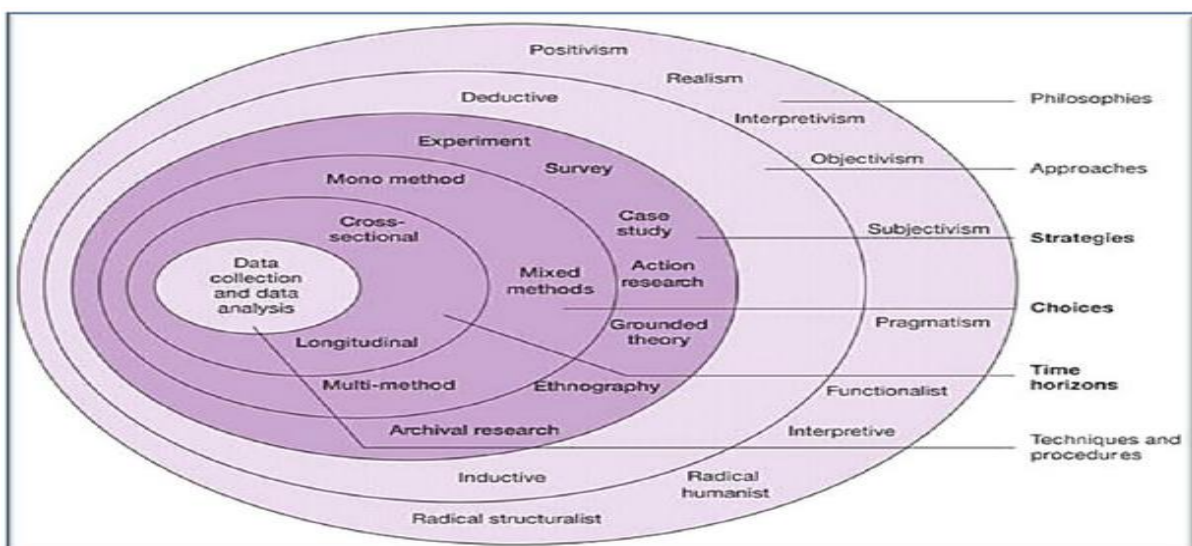
The outer layer of the onion deals with the philosophy of the research. I decided that the philosophy of my study was 'interpretive', i.e. I would gather data and interpret it (Saunders et al. 2012). The next layer looks at the research approach, i.e. whether your study will be deductive or inductive. Deductive means that you have read the literature, determined themes of the literature and will carry out research to prove what the literature says (Gray 2004). Inductive means that you are starting with your data gathering and from that, determining themes and using the research to prove what you have found out. I decided that for my research the best approach would be the deductive approach, as I will start with the literature and hope that my research would coincide with what the literature said (Wiles et al. 2011). The third layer deals with the research strategies. I decided to carry out a questionnaire. Questionnaires tend to lend themselves well to deductive, exploratory and descriptive research (Saunders et al. 2012). The fourth layer looks at the choice of method, i.e. whether you will be doing mono-method, mixed methods or multi-methods. I have decided to use only one method of research therefore my research will be mono-method as I felt that it would provide me with all of the information required (Saunders et al. 2012). The fifth layer asks whether your project is cross-sectional or longitudinal. My dissertation will be cross-sectional, as I only have a set amount of time to carry it out. The final layer considers the methods of data collection. I carried out a questionnaire for my primary research. For my secondary research, I will look at literature in peer reviewed articles and books.

3.2 Classification of Research

Research can be classified as being descriptive, correlational, explanatory or exploratory (Kumar 2005). All of these were considered in order to determine which classification this study falls under. An explanation of each classification is as follows:

Descriptive research aims to describe a situation, problem, phenomenon or service. The problem or question and the areas that are significant to it are described. It is expected in this type of research that the author has extensive knowledge of the situation being studied (Kumar 2005).

Correlational Research aims to discover or establish a relationship between two or more aspects of one particular situation (Kumar 2005).

Explanatory research aims to discover how and why there is a relationship between aspects of a situation (Kumar 2005).

Exploratory research states that the author will gain insights into a particular area of study. It helps the author decide what relevant action should take place in order to gain further information (Malhorta 2007).

From these classifications, I decided that my research was mainly exploratory. I explored a particular area of study in order to find things out. Descriptive research was also used to further develop this dissertation.

3.3 Qualitative and Quantitative Research

Research is either qualitative or quantitative. In simple terms, qualitative research examines data using words, while quantitative research examines data using numbers and statistics (Hyde 2000). An understanding of both is important here in order to determine which approach I would use for this research.

Quantitative research stems from a positivist philosophy. Positivists use data to verify rather than discover. Quantitative research aims to gather data and statistical analysis (Malhorta 2007). It is mostly connected with large-scale research.

Qualitative research stems from an interpretivist philosophy. Interpretists believe that people's views and opinions can be gathered and analysed. Qualitative research gathering and

data analysis involves the researcher making sense of the data by identifying themes and analysing the participant's opinions (Cohen et al. 2007).

There are key differences between qualitative and quantitative research which are outlined below in Table 4, sighted in Kumar (2003). However, qualitative and quantitative research can be used together to complement each other, which is known as mixed methods. This can also help for triangulation (Malhorta 2007).

Table 4: Differences between Qualitative and Quantitative research (Kumar 2005)

Difference with respect to:	Quantitative Research	Qualitative Research
Underpinning Philosophy	Rationalism: "That human being achieve knowledge because of their ability to reason" (Bernard 1994)	Empiricism: "The only knowledge that human beings acquire is from sensory experiences" (Bernard 1994)
Approach to Enquiry	Structured and rigid	Unstructured and flexible
Main purpose of investigation	To quantify the extent of variation in a phenomenon or situation	To describe variation in a phenomenon or situation
Measurement of variables	Emphasis on some form of either measurement or classification of variables	Emphasis on description of variables
Sample Size	Greater Sample Size	Fewer cases
Focus of Enquiry	Narrows focus in terms of extent of inquiry. Requires greater number of respondents	Covers multiple issues. Requires fewer number of respondents
Dominant Research Value	Reliability and Objectivity	Authenticity but does not claim to be value-free
Dominant Research Topic	Explains prevalence, incidence, extent, opinions and attitude: discovers formulates theories	Explores experiences, meanings, perceptions and feelings
Analysis of Data	Subjects variables to frequency distributions, cross-tabulations or other statistical procedures	Subjects responses, narratives or observation data to identification of themes and describes these
Communication of findings	Organisation more analytical in nature, drawing inferences and conclusions, and testing magnitude and strength of a relationship	Organisation more descriptive and narrative in nature.

After examining the differences between qualitative and quantitative research, it became clear to me that my study would lend itself better to qualitative research. This study examines people's opinions. Analysis of data in this dissertation is narrative rather than statistical.

3.4 Reliability and Validity

Reliability means consistency. It focuses on whether the same results would be gathered if the research project was carried out by another researcher. Reliability is hard to determine in qualitative research. According to Kumar (2005), there are several factors that can impact on the reliability of qualitative research. These include:

Wording of the questions: Kumar (2005) states that there is a need for clarity and understanding in the wording of the questions and the information sheet provided to the participants. As the researcher, I carried out a pilot study of the questionnaire on colleagues to ensure that the wording is clear and easy to understand. From this pilot study, I made some changes as suggested by my colleagues.

The physical setting: Questionnaires were distributed to the participants in their work setting. It was hoped that this would help the participants to feel at ease when completing the questionnaires. The questionnaires were distributed by the school principal, not the researcher, which should help with any bias (Kumar 2005).

The respondent's mood: Lindell & Whitney (2001) recognises that a participant's mood on the day of filling out the questionnaire can alter the responses. This is out of the control of the researcher. However, providing the participants with an information sheet that outlines exactly what would happen in the questionnaire should help with this.

I have considered the above factors when thinking about the reliability of my research. I feel that if other researchers were to think about these factors while carrying out a similar project, they would achieve similar results.

Validity deals with whether the research methods completely address the research question and objectives, i.e. are the findings valid. Kumar (2005) identifies three key types of validity. These are:

Face and content validity. This ensures that there is a direct link between the questions being asked and the research question and objectives of the study (Kumar 2005).

Concurrent and predictive validity. This relates to the use of two methods of research gathering. It compares and contrasts the two methods (Kumar 2005).

Construct Validity. This looks at the relevance of the data analysis in regards to the whole project, including the research question and objectives (Kumar 2005).

It is my belief that the findings of this research are valid. Each question in the questionnaire was designed as a result of the research question and objectives.

3.5 Ethics

I carried out a questionnaire with teachers in different schools across Donegal. The main ethical issues that I had to consider were anonymity and confidentiality. I had to ensure that all participants were made aware that the questionnaire would be carried out with highest confidentiality and that all data would be anonymised (Novaes et al. 2013). In order to do this, I had to complete an ethics application form (appendix 1) to receive ethics clearance from the LYIT. I had to provide the LYIT with a consent letter for participants (appendix 2),

an information letter for participants (appendix 3) and my questionnaire (appendix 4) to ensure that all questions were suitable and did not raise any ethical issues. All participants had to sign the consent form ahead of completing the questionnaire and read the information letter to ensure that they knew the purpose of the research and what the data would be used for. Participants were made aware that they could withdraw from the research at anytime up until data analysis. I sent the ethics application to my supervisor who approved it and then sent it to the LYIT. I was given feedback, and after making some minor changes, I was given ethics clearance.

3.6 Ethics Checklist

Prior to filling out my ethics application, I used a checklist to ensure that I had thought of all relevant factors with regards to ethics. I adapted a checklist, Table 5, developed by Bryman (2004) to do this. I read through the checklist and ensured that I had answered yes to all of the questions. This allowed me to be absolutely certain that I had considered everything with regards to ethics.

Table 5: Adaptation of Bryman's Checklist for Conducting Ethical Research

Does your research conform to the principles of informed consent, so that research participants understand:
What the research is about?   Y
The purpose of the research?   Y
The nature of their involvement in the research?   Y
How long their participation is going to take?   Y
That their participation is voluntary?   Y
That they can withdraw from participation in the research at any time?   Y
What is going to happen with the data?   Y
Are you confident that the privacy of the people involved in your research will not be violated?   Y
Do you appreciate that you should not divulge information or views to your research

participants that other research participants have given you?   Y

Have you taken steps to ensure that your research participants will not be deceived about the research and its purposes?   Y

Have you taken steps to ensure the confidentiality of data relating to your research participants will be maintained?   Y

Once the data has been collected, have you taken steps to ensure that the names of your research participants and the location of your research are not identifiable?   Y

Does your strategy for keeping your data in electronic form comply with data protection legislation?   Y

3.7 Gatekeeper

As stated, I decided to conduct my research with primary school teachers in Donegal. The gatekeeper for my research was the principal of each school. I provided the principals with a letter of consent in order to gain their permission to distribute my questionnaires in their school and an information letter to ensure that they knew the purpose of the research, how the data would be used and stored and who would have access to it (Mulvey 2015). I decided what schools I would include in my research and posted a certain number of questionnaires to the principal of that school. I asked the principal to distribute the questionnaires and return them to me in a SAE provided by 31 March 2018. I used schools that I am known in.

3.8 Data Storage

Participants and the gatekeeper were made aware that all data would be collected, processed and stored in compliance with relevant data protection legislation and in compliance with LYIT's guidelines for electronic data storage.

3.9 Data Collection

Data collection refers to the method you are going to use to gather the data for the study. When choosing the method of data collection, it is important to read and understand the vast

amount of methods that are available. According to Birdthistle (2006) the key factor in choosing your method should be that it fulfils the requirements of your research. This means that it must be the best method available to answer the research question and objectives.

Although questionnaires usually fall into quantitative research, I chose to carry out a qualitative questionnaire and analyse it qualitatively (Bryman 2012). The main purpose of my study was to find out what methods of SCL are used in primary school classrooms and how SCL benefits the students. I feel that questionnaires would provide sufficient information. I could have chosen to carry out interviews but I feel that questionnaires would provide me with more accurate information.

My questionnaire collected ordinal data using Likert Scales (Likert 1932). A narrative analysis of the data was then carried out. Likert Scales enable the researcher to ask questions on a scale ranging from strongly agree to strongly disagree and are particularly useful for interpreting participant's perceptions and opinions (Likert 1932). The Likert Scale allowed me to gather a large amount of data.

3.10 Design of Questionnaire

In order to design the questionnaire, I carried out an extensive review of the literature on SCL. I also examined previous questionnaires that were used to gain information on SCL. I designed a first draft of my questionnaire based on the themes that I found from my literature review and my research question and objectives to ensure that every question on the questionnaire had a purpose (Birdthistle 2006). In order to ensure that the questions were appropriate, relevant and easy to understand, I carried out a pilot study with ten of my colleagues. This helped me to identify any mistakes on my questionnaire. I then looked back at my question and objectives and the literature and reviewed the design of my questionnaire fixing any mistakes (Birdthistle 2006).

3.11 Sampling

I sent out four hundred questionnaires in the hope that I would get a high response. Flick (2009) states that the higher the response rate, the more accurate and valid the results will be. The questionnaires were filled in by teachers in primary schools to find out their opinions on SCL. Participants signed a consent sheet and read an information sheet prior to being given the questionnaire. Participants knew that participation was voluntary and that they could withdraw at any time until data analysis began. I decided to use schools in Donegal where I am known. This meant that I had already built up a relationship with the principal and also the teachers. This helped in receiving a high response rate.

Chapter 4: Findings and Analysis

I was very lucky with the response to my questionnaires. I sent out 400 questionnaires and received 180 responses, which provided me with an extensive amount of findings. The analysis of qualitative data is somewhat more complex than the analysis of quantitative data, as the researcher is analysing participants views and opinions. The researcher has to identify themes and patterns throughout the findings that relate back to the literature found.

4.1 Data Analysis

White (2000) developed three key stages that should be followed when analysing data. These are:

1. Reading through all data and indentifying themes.

2. Re-reading all data and grouping indentified themes using colours or codes.

3. Examining the themes and patterns that you have found and relate them to the literature.

This model was used as a guide during data analysis and aided me in identifying themes. White (2000) also outlines processes that should then be used for data analysis. These are:

Data Display: Information collected is visually presented using charts and diagrams to help with identifying themes. I read through my questionnaires and made notes of themes that I found in each response. I colour coded any themes that were similar in different questionnaires. This was done a few times in order to find a small number of recurring themes within the questionnaires (White 2000).

Data Reduction: This involves the researcher looking through the information gathered once again in order to minimise the findings to a smaller number of themes. The decision was made at this point about what was relevant and irrelevant (White 2000).

Conclusion drawing and verification: When themes have been decided, the researcher must then critically evaluate the data (White 2000).

Once this was done, Microsoft Excel was used and data was placed on bar charts and pie charts. My questionnaire collected ordinal data using Likert Scales (Likert 1932). A narrative analysis of the data was then carried out.

4.2 Identifying Themes

Through reading the literature and previous studies on SCL, I was able to indentify recurring themes on the methods of SCL being used, the benefits that SCL has for students and the assessment strategies that are considered the most important for SCL.

Attard et al. (2010) carried out a project which aimed to assist policy makers in designing appropriate SCL strategies. The project also aimed to provide all those involved, students, staff, principles and educational bodies with knowledge about the necessary tools and challenges and success stories of SCL. Although the project was aimed at third level institutes, it can be adapted to fit primary or secondary schools.

The SCL Toolkit was produced as one of the last initiatives of the project and was designed to show staff, students and educational bodies how to effectively implement SCL, how practical and achievable SCL could be and how SCL can be highly beneficial for all involved (Attard et al. 2010). Attard et al. (2010) identified nine principles/themes of SCL that I used to help me analyse my data.

Principle 1: SCL requires an Ongoing Reflexive Process. By reflecting, teachers can help improve the learning experience for their students and help to ensure that the intended learning outcomes are achieved by stimulating and engaging learning experiences. This coincides with Gilis et al. (2008), who states that SCL is the best teaching method for encouraging engagement and motivation in learning.

Principle 2, 3 and 4: SCL does not have a One-Size-Fits-All Solution. Students have different needs, interests and learning styles. All institutions are different, all teachers are different and all students are different. This is backed up by the Primary National Strategy (2006) which states that as students have different learning styles, it is vital that a variety of teaching methods are used.

Principle 5 and 7: Choice is central to SCL. Students should be involved in an element of choice in their learning. They can be involved in choosing the learning outcomes, the teaching methods, the assessment strategies, classroom layout or classroom management. The best way to engage students in their learning is by allowing them to play an active role in deciding how their learning should be shaped. Biggs (2003) says that in 'constructive alignment', learning outcomes, teaching methods and assessment strategies should all be aligned in order for effective teaching and learning to take place.

Principle 6: Students have different experiences and background knowledge. Personal experience can stimulate and motivate students, thus developing deeper learning and higher learning outcomes. If students are involved in activity based learning or problem based learning, it can show them how learning can be related to real life situations.

Principle 8: Enabling not Telling. SCL aims to give students a greater responsibility in their own learning. It aims to encourage students to think, to reflect, to critically analyse, to apply knowledge and to solve problems. Vygotsky believes in scaffolding, i.e. the teacher acts as a facilitator guiding the students towards their learning. Vygotsky also believes in Two Zones, the Zone of Actual Development – what the student can do by themselves, and the Zone of Potential Development – what the student can do with help or support from their peers and their teacher. By the teacher acting as a facilitator of leaning, it allows students to develop deeper learning and achieve higher learning outcomes (Cardwell et al. 2000).

Principle 9: Learning needs cooperation between students and staff in order to fully understand the basic principles of SCL. This can help to create a positive learning environment for all involved, which can help increase motivation and help students achieve deeper learning.

Attard et al. (2010) also outlined the benefits SCL can have for students. SCL provides students with skills for life, helps create independent learners, while at the same time helps develop collaborate learning.

Benefit 1: Helps make students an integral part of the academic community. Given that the teacher acts as a facilitator, rather than an instructor when teaching through a SCL approach, students become part of the education community much earlier. SCL encourages students to develop critical and analytical skills. When student's views and opinions are valued by having a say in how they learn and what they learn, it increases engagement and interaction. Vygotsky says that students should be active in their learning and that the teacher should act as a facilitator (Cardwell et al. 2000).

Benefit 2: An increased motivation to learn. SCL can help encourage deeper learning. Knowledge retention differs depending on the way in which material is learned. SCL is proven to give higher retention rates than TCL. Through SCL, students also become more motivated to learn as having a choice in how and what they learn increases interest. Piaget

and Vygotsky both state that being an active learner increases interest, motivation and deeper learning (Cardwell et. el. 2000). Table 6 below shows that when a student is listening they only retain 5% of information; when they are reading they only retain 10% of information; when they are watching they retain 30% of information; when they are demonstrating they retain 40% of information. The above are all considered to be passive teaching methods or TCL. However, when students are demonstrating what they have learned they retain 50% of information; when they are doing they retain 75% of information and when they are teaching others they retain 90% of information. The last three are considered cooperative learning methods or SCL.

Table 6: Learning Pyramid shows how SCL can encourage deeper learning.
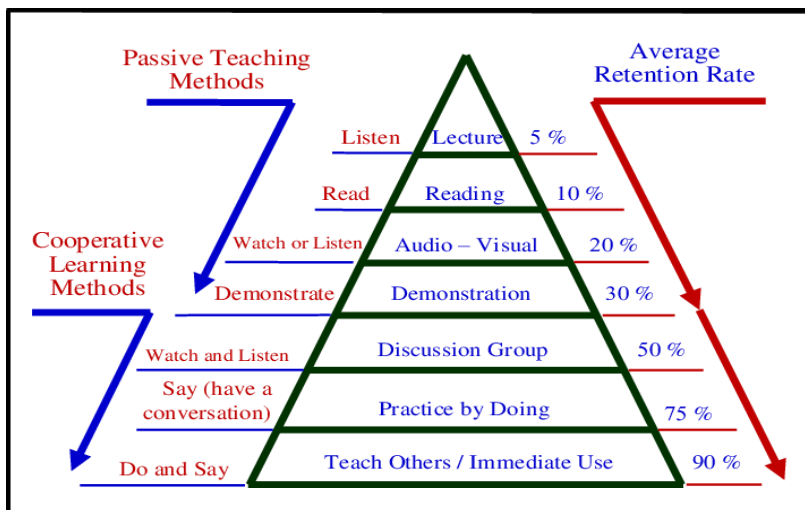
Benefit 3: Independence and Responsibility of Learning. When students are involved in deciding what and how they learn, they develop a greater responsibility for learning. They develop skills that help them to work independently and that will help them develop lifelong learning skills.

Benefit 4: Due Consideration for students needs. Students needs vary. SCL demonstrates that students should have the opportunity to learn in different settings, e.g. library, computer room and outdoors.

Benefit 5: Continuous self improvement. SCL enables students to reflect on their own learning, thus enabling them to improve their own learning. SCL also encourages teachers to provide feedback that helps students fill the gap in their knowledge, again improving their learning. Lea et al. (2003) says that reflection for both teachers and students is one of the main elements of SCL.

Benefit 6: Quality Enhancement. SCL enables teachers and educational bodies to improve the quality of teaching and learning for students.

Benefit 7: Fostering a lifelong learning culture. Students who have experienced a SCL teaching approach are enabled to solve problems, reflect on their learning and develop lifelong learning skills.

4.3 Results and Analysis

Fig 1: Q 1: How long have you been teaching for?
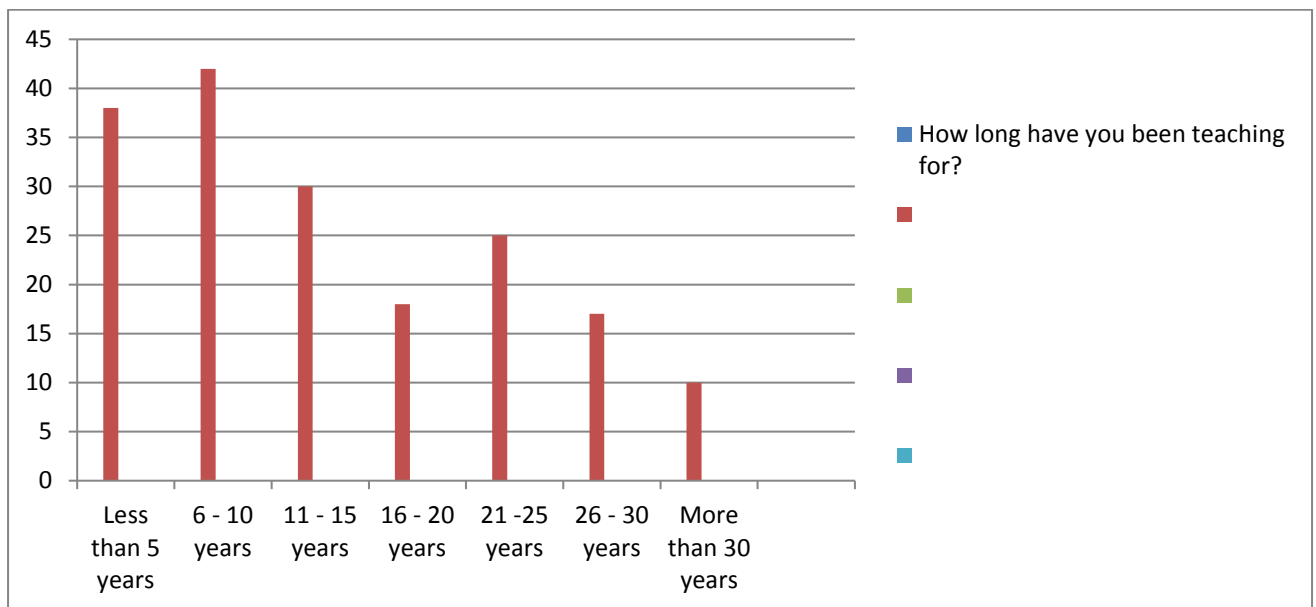
Fig 1 shows how many years each participant has been teaching for. 21.1% of participants have been teaching for less than five years and 23.3% have been teaching for between six and

ten years. These two groups made up 44.4% of all participants. I thought that this may be the case as new or younger teachers are being taught to use SCL more in their lessons, so I felt that the questionnaire would appeal to them. 16.7% have been teaching for eleven to fifteen years, 10% have been teaching for sixteen to twenty years, 13.9% have been teaching for twenty one to twenty five years, 9.4% have been teaching for twenty six to thirty years and 5.6% have been teaching for more than thirty years.

Fig 2: Q 2: What class do you currently teach?
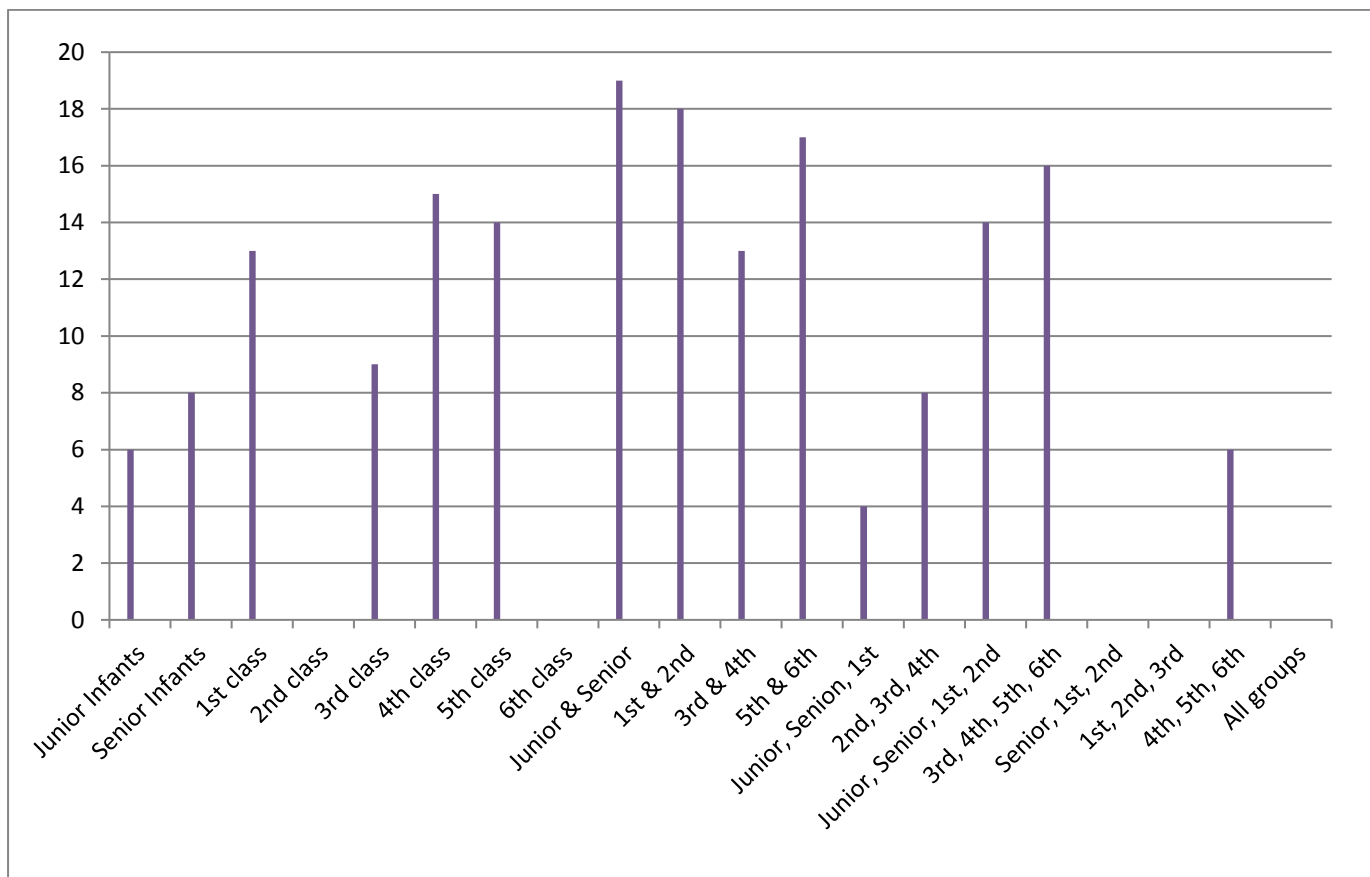
Fig 2 shows what class/classes the participants taught. Primary schools in Donegal can range from a one teacher school to schools with over thirty teachers. There are a lot of smaller schools in Donegal, therefore a lot of teachers teach more than one class. I tried to send my questionnaires to a wide range of schools so as to get a range of results with regards to class/classes taught. 0% of teachers taught all age groups. 3.3% currently teach Junior Infants, 4.4% teach Senior Infants, 7.2% teach 1st class, 10.6% teach Junior and Senior

Infants, 10% teach 1st and 2nd class, 2.2% teach Junior and Senior Infants and 1st class and 7.8% teach Junior and Senior Infants and 1st and 2nd class. These groups add up to 45.5% of all the participants. 0% of respondents taught 2nd class or 6th class. This may be due to the fact that these classes had communions and confirmations in and around the time that the questionnaire was distributed and the teachers may not have had the time to fill it in.

5% teach 3rd class, 8.3% teach 4th class, 7.8% teach 5th class, 7.2% teach 3rd and 4th, 9.4% teach 5th and 6th, 4.4% teach 2nd, 3rd and 4th, 8.9% teach 3rd, 4th, 5th and 6th and 3.3% teach 4th, 5th and 6th. The amount that teaches the higher class added up to 54.3%. 0% of respondents teach Senior Infants, 1st and 2nd class, and 0% of respondents teach 1st, 2nd and 3rd class. This is probably because most schools tend not to structure their classes this way. I had thought that the majority of my respondents would teach the younger classes as they are more likely to use SCL. However the results show that this is not the case as 45.5% teach the younger classes and 54.3% teach the older classes. However, as this is quite a balanced result, it will allow me to gather a wider range of findings.

Fig 3: Q 3: Do you use SCL in your class?
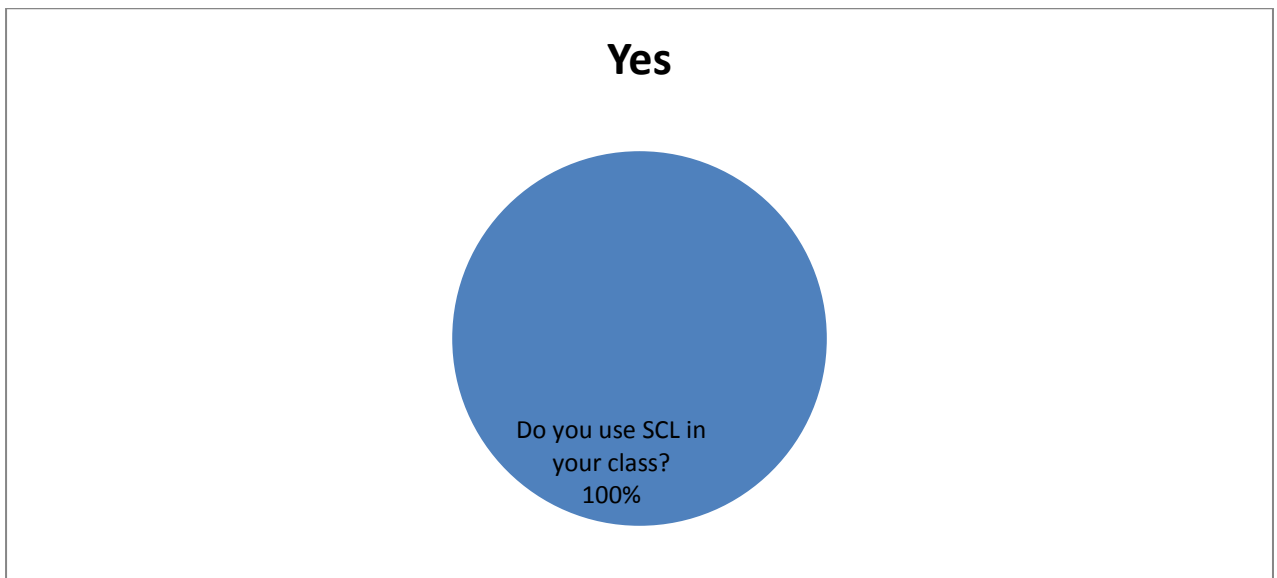
100% of participants said that they use SCL in their class. This result was expected. SCL has huge benefits for students and is becoming more popular every day. Previous literature has

found that there has been a huge shift in education from TCL to SCL. Students are becoming more active in their own learning (Biggs 2003). Educational institutes are adopting the SCL approach because it develops deep learning rather than surface learning, due to students actively participating in lessons (Race 2014). Research has found that students are now being encouraged to be more active in their own learning and are encouraged to think creatively and critically. The fact that 100% of participants use SCL, show this to be true (Fernandes et al. 2012)

Fig 4: Q 4: How often do you use SCL?
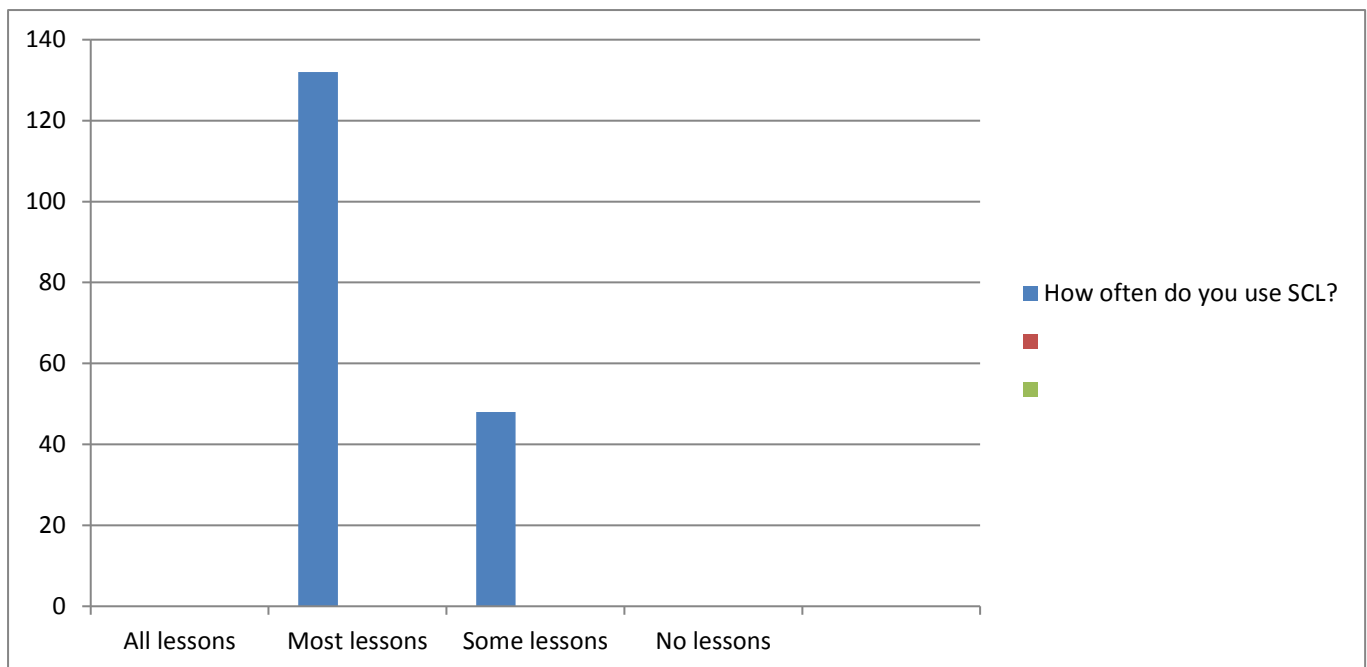
0% of participants said that they use SCL in all lessons. No one can be expected to use SCL all of the time. I was glad to see that 0% said that they never use SCL. 73.3% said they use SCL in most lessons. This is the majority of the participants which shows that SCL is becoming the norm in primary schools in Donegal. 26.7% said that they use SCL in some lessons, which shows that some teachers still have a way to go to ensure that they are using SCL in their lessons.

Fig 5: Q 5: How often do you use SCL in each subject?
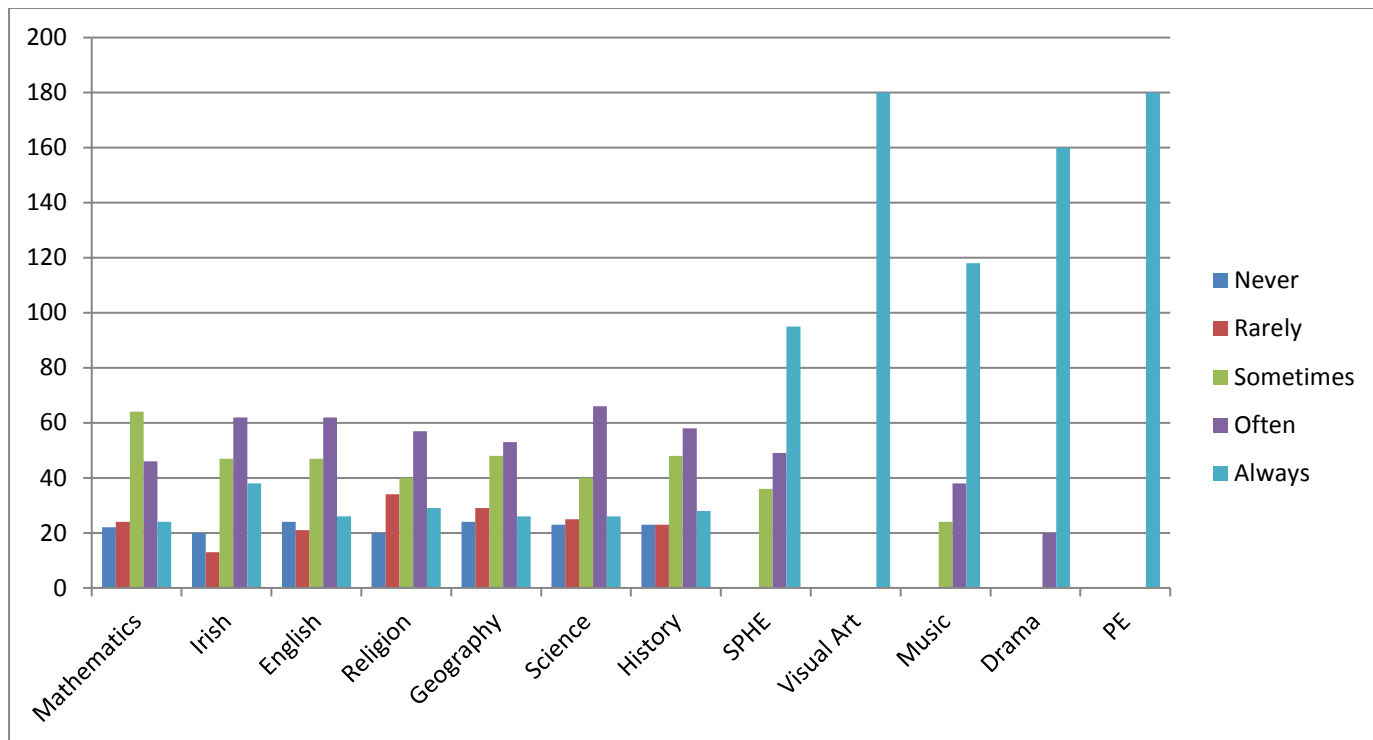
Fig 5 shows the results of the question how often do you use SCL in each subject? The amount of respondents that said they never or rarely use SCL in some of the subjects is very worrying. 25.5% said that they never or rarely use SCL in mathematics, 18.3% said they never or rarely use SCL in Irish, 25% said they never use SCL in English, 20% said they never or rarely use SCL in religion, 29.4% said they never or rarely use SCL in geography, 26.7% said they never or rarely use SCL in science and 25.6% said they never or rarely use SCL in history. These are quite worrying results as approximately 25% of respondents said that they never or rarely use SCL in these subjects. The majority of respondents that said they never or rarely use SCL in these subjects were those who taught the higher end classes – 3rd to 6th. This may be due to the fact that there is a lot to get through in terms of the curriculum. SCL can take a lot of time to organise if you are not sure how to go about it. Also, the higher end classes tend to sit in rows, tend to read and work from their texts books and tend to have the teacher lecturing rather than acting as a facilitator. This class layout does not lend itself well to SCL. SCL does not need to be used in every lesson, but should at least be used in every subject. SCL has been proven to promote deeper learning, higher outcomes and the ability to develop higher knowledge, skills and understanding (Torenbeek et al. 2009). 0% said that they never or rarely use SCL in SPHE, visual art, music drama and P.E. The

majority of respondents said that they often or always use SCL in these subjects. 100% said they always use SCL in art and P.E. 100% said they often or always use SCL in drama and 100% said they sometimes, often or always use SCL in SPHE, visual art and music. This result was to be expected as these subjects lend themselves well to collaborative learning (Gilis et al. 2008).

The majority of respondents said that they use SCL in each subject sometimes, often and always. 74.5% said they sometimes, often or always use SCL in mathematics, 81.6% said they sometimes, often or always use SCL in Irish and 74.9% said they sometimes, often or always use SCL in English. As these are the core subjects in the primary school curriculum, and the subjects that most of the school timetable is allocated to, I was happy to see this result. It shows that there is a pedagogical shift in education towards SCL which is what the previous literature has found (Race 2014). However, as approximately 25% said they never or rarely used SCL in these subjects, shows that there is still a lot that needs to be done to encourage SCL. Of those who said they use SCL often, sometimes or always, the majority again was from respondents who teach the younger age range – Junior Infants to 2nd class.

69% said they use SCL in religion. This was to be expected as the new religious programme for primary schools in Ireland, Grow in Love, lends itself well to SCL. It involves a lot of music, drama and art. It encourages collaborative learning and activity based learning. 79.1% said that they use SCL in geography, 73.3% in science and 74% in history. This result was to be expected as these subjects lend themselves well to collaborative learning and activity based learning. Whole class teaching, paired work, group work, individual work, role play, visual aids and activity based learning are all methods that can be used to ensure that you are teaching to the different learning styles of your students (Primary National Strategy 2006). Attard et al. (2010) states that principles 2, 3 and 4 expresses the need for different learning styles as students have different needs.

Fig 6: Q 6: Which of the following methods of SCL do you use?
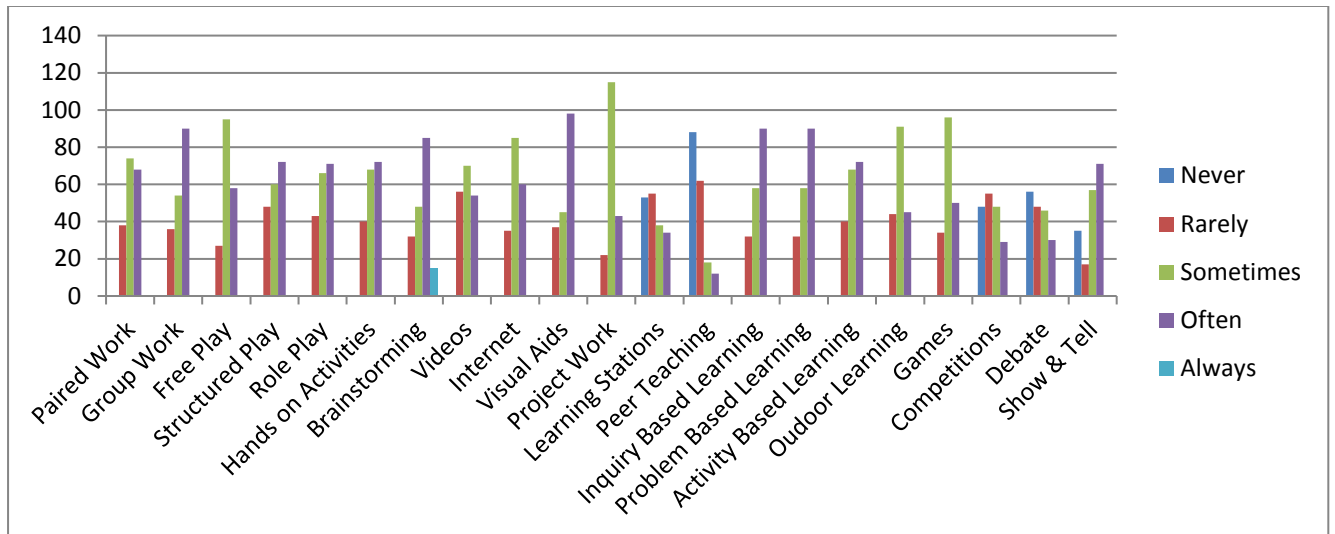
Fig 6 shows the results from the question – which of the following methods of SCL do you use? 0% said that they never use paired work, group work, project work or brainstorming. Between 12% and 22% said that they rarely use. The majority of respondents that said they rarely use these methods were those who teach the older classes. As stated earlier, these classes tend to be lined in rows and the students tend to be encouraged to work independently, without talking to the person beside them. This structure does not lend itself well to SCL. 0% said that they always use paired work, group work or project work. However 8.3% said they always use brainstorming. Brainstorming is a fantastic way of assessing student's prior knowledge. You can learn what students know and what the gaps in their knowledge are (Assessment in the Primary School Curriculum 2007). 78.9% said that they sometimes or often use paired work, 80% said they sometimes or often use group work, 87.8% said they sometimes or often use project work and 73.9% said they sometimes or often use brainstorming. The majority of those who said they sometimes or often use these methods were teachers who teach the younger classes. Collaborative learning and brainstorming enables students to communicate their ideas to other students and to listen to others ideas. It enables deeper learning and critical thinking. Students not only have to devise ideas, but they have to share them with their peers. This involves a high level of processing and problem solving and requires the students to critically reflect on their ideas (Alexander et al. 2008).

60% said that they never or rarely use learning stations and 83.3% said that they never or rarely use peer teaching. This result was to be expected as teachers are limited in schools in Donegal. Some schools only have one teacher for the whole school i.e. one teacher for all eight classes, a lot of schools only have two teachers i.e. four classes per teacher and most schools in Donegal have four teachers per school i.e. two classes per teacher. Therefore teachers are unable to incorporate learning stations or peer teaching into their lessons. However 40% said they sometimes or often use learning stations and 16.7% said they sometimes or often use peer teaching. These results came from teachers who were working in larger schools and only had one class to teach.

0% said that they never or always use free play, structured play, role play, hands-on activities or outdoor learning. This was to be expected. Drama, art and P.E. lend themselves well to these methods of SCL, so it was unlikely that teachers would say they never use these methods. At the same time, the core subjects of mathematics, Irish and English take up a lot of the daily timetable so it was unlikely that teachers would say these always use these methods in these subjects. 85% said that they sometimes or often use free play, 73.3% said they sometimes or often use structured play, 76.1% said they sometimes or often use role play, 77.8% said they sometimes or often use hands-on activities and 75.6% said they sometimes or often use outdoor learning. Piaget believes that students build their own knowledge by finding out for themselves. When a student learns things for themselves they develop a positive attitude to learning (Cardwell et al. 2000). Piaget believes strongly in play. He believes that children need to be actively involved in learning through play in order to develop knowledge, skills and concepts about what they are doing (Cardwell et al. 2000). Attard et al. (2010) in benefit 4 states that students should have the opportunity to experience learning in different ways such as through play and outdoor learning and that it has huge benefits for the students.

0% said that they never or always use videos, the internet or visual aids. 31.1% said they rarely use videos, 19.4% said they rarely use the internet and 20.6% said they rarely use visual aids. These results did surprise me, as these resources are a fantastic way of ensuring that you meet the different needs of your students. Principle 2, 3 and 4 of the SCL Toolkit Attard et al. (2010), states that students have different needs and interests and learning styles

and SCL is a learning approach that requires different teaching methods to meet the needs of all students. However, I was glad to see that the majority of respondents said that they sometimes or often use videos, the internet and visual aids. 68.9% said they sometimes or often use videos, 80.5% said they sometimes or often use the internet and 79.4% said they sometimes or often use visual aids. The Primary National Strategy (2006) states that as students have different learning styles, it is vital that a variety of teaching methods are used.

0% said that they always use games, competitions, debate or show and tell. This result was to be expected. 57.3% said they never or rarely use competitions and 57.8% said they never or rarely use debate. The majority of those who said they never or rarely use these two methods were those who teach the younger students. This is probably due to the fact that the students are too young to participate in these activities. 32.8% said they sometimes or often use competitions and 42.3% said they sometimes or often use debate. The majority of respondents who gave these answers were from the older classes. Students in the older classes should be encouraged to participate in competitions and debate. It allows for healthy competition and lets students know that it is ok not to win every time and that they can make mistakes (Towler 1992). 0% said that they never use games. 18.9% said they rarely use games. The majority of those that said they do not use games were those who teach the older classes. I was glad to see that 81.1% of respondents said that they sometimes or often use games. Games are a fantastic way of developing communication skills and encouraging team building. If students are enjoying how they are learning they will develop a higher level of knowledge, skills and understanding (Cardwell et al. 2000). 28.8% said that they never use 'show and tell'. 'Show and tell' involves students taking in something from home and telling the rest of the class about it. This result was to be expected as the older classes do not do 'show and tell'. 71.1% said that they sometimes or often use 'show and tell'. The majority of these were those who teach the younger classes. 'Show and tell' can help develop communication skills, questioning skills and learn how to take turns (Gilis et al. 2008).

0% said that they never or always use inquiry, problem or activity based learning. These three methods are all interlinked. Activity based learning is providing your students with hands-on activities to encourage learning. Inquiry based learning and problem based learning begins with the teacher posing a question or problem and asking the student to come up with ways of

trying to solve it. The actual solution to the problem or inquiry is not the important part; it is how they go about trying to solve the issue. 17.8% said they rarely use inquiry or problem based learning. The majority of these were those who teach the younger classes as these are quite difficult processes to go through. 82.2% said they sometimes or often use inquiry and problem based learning. The majority of these were those who teach the older students. 22.2% said they rarely use activity based learning. The majority of these were from the teachers who teach the older classes. 77.8% said they sometimes or often use activity based learning. The majority of these were those who teach the younger classes. These methods of SCL encourage collaborative learning, encourage students to come up with ideas, to listen to others and to work out which solution might be the best. This helps benefit the students by developing communication skills and questioning skills (Attard et al. 2010).

Fig 7: Q 7: Do you use different learning styles to meet the different needs of your students?
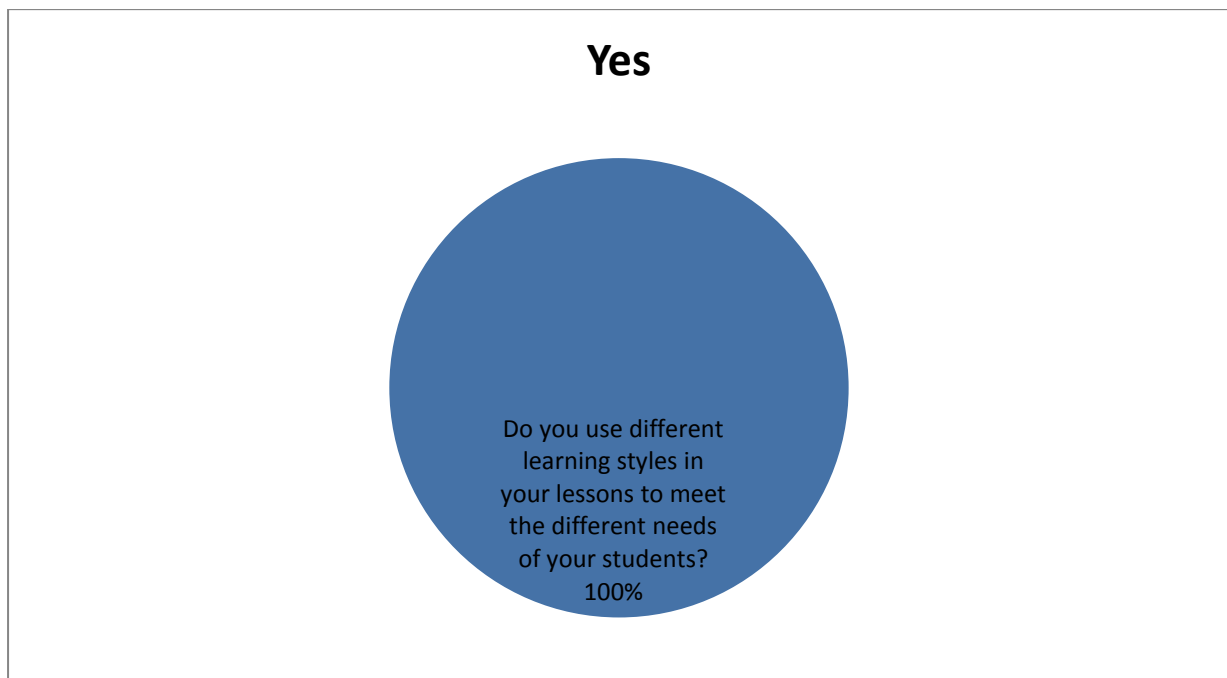
100% of participants said that they use different learning styles in their lessons to meet the needs of their pupils. This result was to be expected. Students have a wide range of needs, which are growing every day. Attard et al. (2010) found that SCL is a learning approach that requires different teaching styles to meet the needs of all students. The Primary National

Strategy (2006) states that as students have different learning styles, it is vital that a variety of teaching methods are used.

Fig 8: Q 8: How often do you use each different learning style in your lessons?
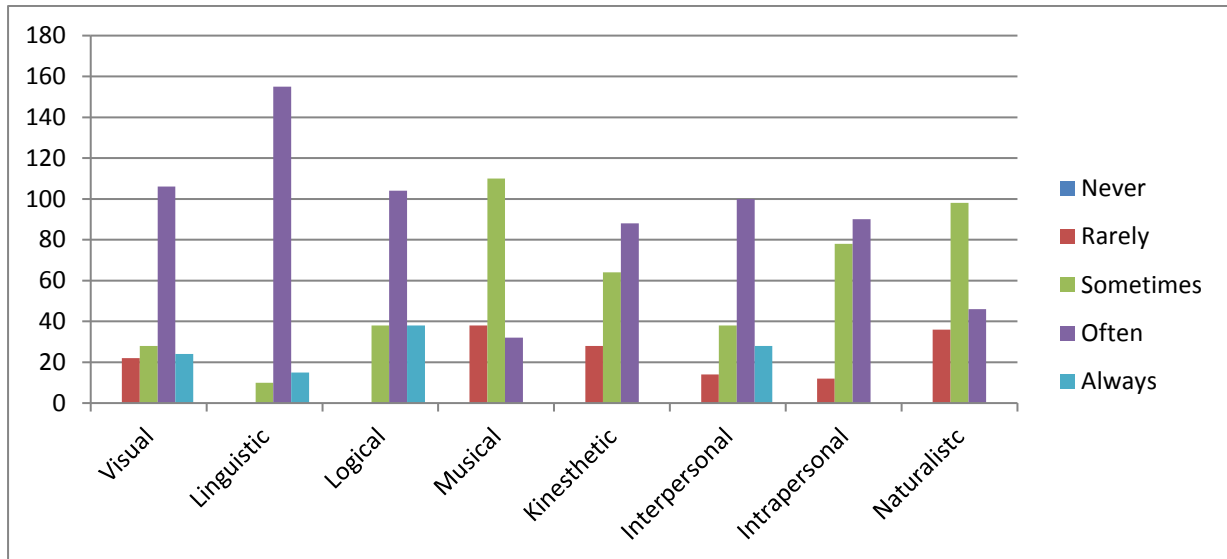
Fig 8 shows the results of how often the respondents used each of the eight different learning styles. The use of different learning styles throughout your lessons is very important. Attard et al. (2010) state in Principle 2, 3 and 4 that SCL does not have a 'one size fits all solution'. They found that all educational bodies, all teachers and all students are different. Therefore it is vital that a range of teaching and learning styles are used. I was happy to find from the results that no one said that they never use any of the different learning styles. However it did surprise me that some of the respondents said that they rarely use some of the different learning styles. 12.2% said they rarely use visual, 21.1% said they rarely use musical, 15.6% said they rarely use kinaesthetic, 7.8 % said they rarely use interpersonal, 6.7% said they rarely use intrapersonal and 20% said they rarely use naturalistic. Of these results, it was mostly those who taught the higher classes that said they rarely use these learning styles. 15.6% said they sometimes use visual, 5.6% said they sometimes use linguistic, 21.1% said they sometimes use logical, 61.1% said they sometimes use musical, 35.6% said they sometimes use kinaesthetic, 21.1% said they sometimes use interpersonal, 43.3% said they sometimes use intrapersonal and 54.4% said they sometimes use naturalistic. These results were from a mixture of those that taught the younger classes and the older classes.

The majority of respondents that said they use the different learning styles often or always were those who teach the younger ages. 72.2% said they often or always use visual, 94.4% said they often or always use linguistic, 78.9% said they often or always use logical, 72.2% said they often or always use interpersonal. This was to be expected, as SCL is more common in the younger ages. Students in the younger classes often sit in groups and are encouraged to work together. However, I was shocked to learn that only 17.8% of respondents said that they often use musical and 0% said they always use musical. I believe that the musical learning style is very important, especially with the younger classes. Children can learn so much from music, song and dance. Only 48.9% said they often use kinaesthetic and 0% said they always use it. To me, again, this is one of the most important learning styles. Providing students with hands-on activities encourages deeper learning (Dean 2001). Only 25.5% said that they use the naturalistic learning style often, with 0% saying that they always use it. Again, this is a worry for me. There has been a lot of research carried out that shows the importance of outdoor learning.

Fig 9: Q 9: Are your students involved in the decision making of any of the following?
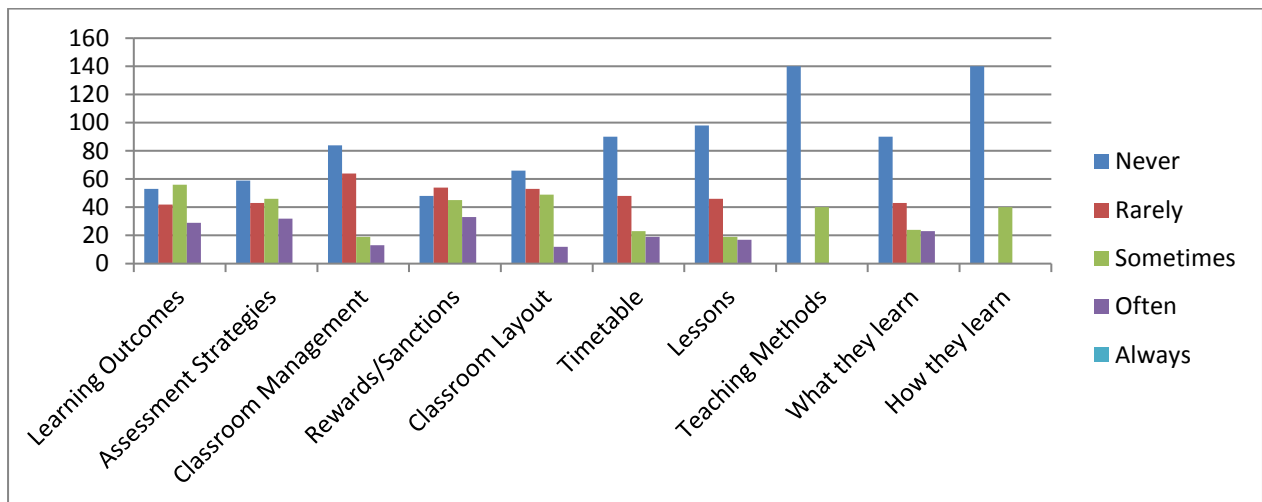
Fig 9 shows the result to the question – are your students involved in the decision making of any of the following? These results showed a vast range of results depending on each statement. 0% said that students are always involved in the decision making of any of the statements. This was to be expected as it would not be feasible for students to have a say in everything that happens in the classroom. 77.8% said students are never involved in the

decision making of teaching methods or what they learn. 50% said students were never involved in deciding the timetable or what they learn and 54% said they never have input into the lessons. 46.7% said they never have input into classroom management and between 29% and 37% said their students never have input into deciding the learning outcomes, the assessment strategies, the rewards/sanctions or the classroom layout. The results of respondents that said their students are rarely involved in the decision making of any of the statements ranged from 23% to 36%. This is on average one quarter of the respondents. Brough (2012) found that there are positive links between the ideas of Student Centred Curriculum Integration, i.e. students involved in designing aspects of the curriculum and achievement and engagement in learning.

47.2% said that their students sometimes or often have an input into the learning outcomes, 43.4% said students sometimes or often have an input into the assessment strategies and 42.2% said students have an input into rewards/sanctions. These were the three highest results of this section. I was happy to see that almost half of the respondents let their students have an input into these statements as these are probably the most important. 17.8% said students sometimes or often have input into classroom management, 33.9% said students sometimes or often have an input into classroom layout, 23.4% said students sometimes or often have an input into the timetable, 20% said students sometimes or often have an input into their lessons, 22.2% said students sometimes or often have an input into the teaching methods, 26.1% said students sometimes or often have an input into what they learn and 22.2% said students have an input into how they learn. If students are allowed to have an input into the curriculum, they can become more motivated and engaged in their learning. Attard et al (2010) states in principle 5 and 7 that the best way to engage students in their learning, is by allowing them to play an active role in deciding how their learning should be shaped. Biggs (2003) says that in 'constructive alignment', learning outcomes, teaching methods and assessment strategies should all be aligned in order for effective teaching and learning to take place. Students should be enabled to have an input into some of these decisions.

Fig 10: Q 10: What methods of assessment do you feel are important for SCL?
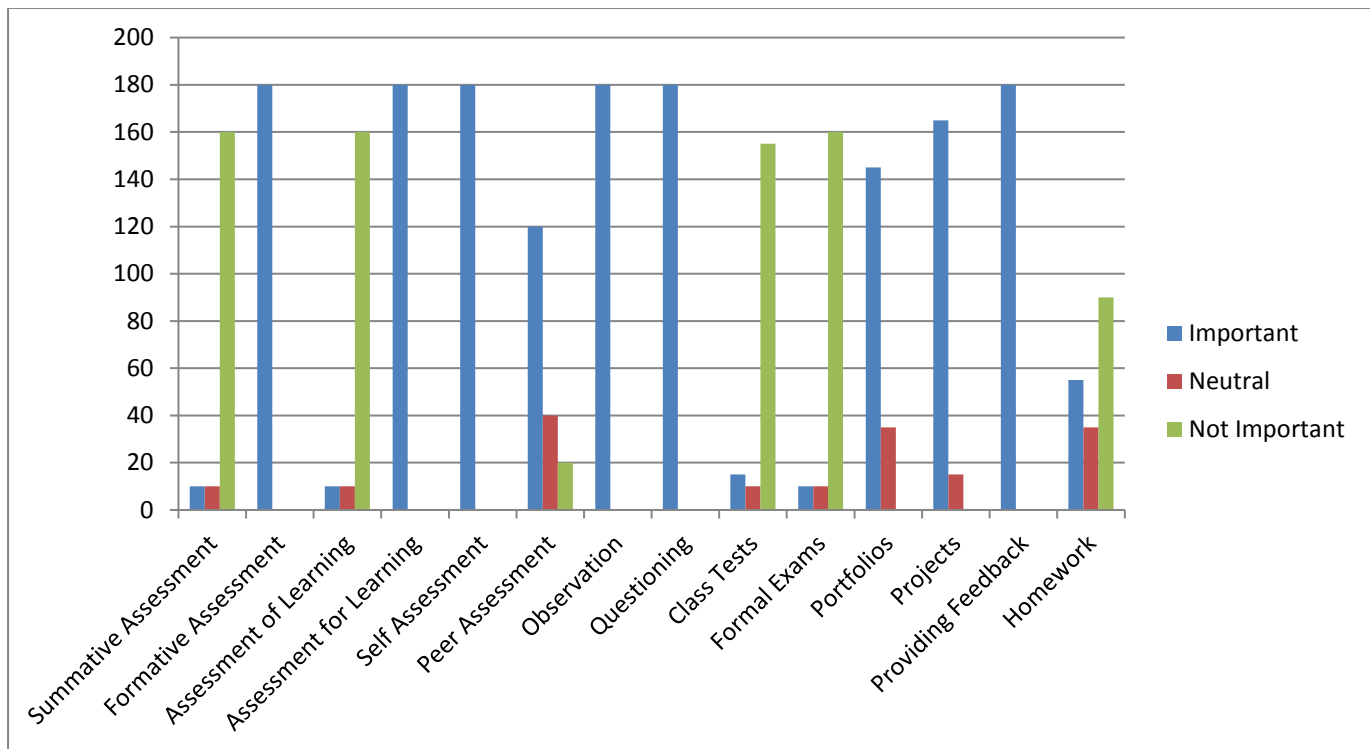
Fig 10 shows the results of the question – what methods of assessment do you feel are the most important for SCL? 88.9% said that summative assessment, assessment for learning or formal exams were not important for SCL and 86% said that class tests were not important for SCL. This is probably because these types of assessments are about the grade or percentage and do not assess students full potential. 50% said that homework was not important with regards to SCL, while 30% said it was important. I believe that this may be because when students are doing work as home, you do not really know who is doing most of the work, i.e. a lot of parents do their homework for their children. This means that homework does not assess the full potential of the student and is not a feasible assessment. 100% said that formative assessment, assessment for learning and providing feedback to their students were important methods of assessment for SCL. Formative assessment or assessment for learning are continuous and are used to improve students' learning. They help the teacher find the gaps in student's knowledge and help them work out how best to fill that gap (Assessment in the Primary School Curriculum 2007). Providing feedback to your students what they are doing well and what they could do to improve their learning is vital as it helps

students understand any gaps they might have in their knowledge and how best to improve on their learning (Assessment in the Primary School Curriculum 2007).

100% of respondents said that self-assessment was an important assessment strategy for SCL. There are many strategies in primary school that allow for self-assessment, including thumbs up thumbs down, KWL, WALT and WILT, questioning and rubrics (Assessment in the Primary School Curriculum 2007). The importance of self-assessment is that it allows students to take a greater responsibility for their learning, to make judgements on their learning, to determine what areas they need extra support in and to realise that it is ok to make mistakes (Towler 1992). 100% said that observation was an important assessment strategy for SCL. The main formative assessment strategy used in primary schools is observation. This can involve observing them doing their work and questioning the students individually or in groups (Ayers 1996). Observation enables the teacher to find gaps in the children's knowledge and plan lessons effectively to help develop the children's knowledge, skills and understanding further (Assessment in the Primary School Curriculum 2007). This links with Biggs (2003) 'constructive alignment' as he says that learning outcomes, teaching methods and assessment must all be aligned for effective teaching to take place. 100% said that questioning was important for SCL. Questioning can be used as a method in its own right or can be incorporated into other forms of assessment. Questioning enables students to think for themselves and helps teachers find out what the students know so that they can build on this and help develop the student's knowledge (Wragg et al 1993).

66.7% said that peer assessment was important for SCL, 22.2% said neutral and 11.1% said that peer assessment was not an important assessment strategy for SCL. While I was not surprised that the vast majority said that it was important, I was surprised that any of the respondents thought it was not important. Peer assessment enables students to work together by interacting with their peers, to share information, to evaluate ideas, to come up with different solutions to a task and to share and expand on their knowledge and understanding of a topic (Genc 2016).

80.6% said that portfolios were important for SCL and 19.4% said they felt they were neutral. 91.7% said that projects were important for SCL and 8.3% said they felt they were neutral. 0% said that portfolios or projects were not important assessment strategies for SCL. Conferencing and portfolio assessment involves having a meeting or discussion with a student at different times of the year. It can involve only the teacher and student or the parents can be involved also. It involves looking at a portfolio of the child's work and assessing the strengths and weaknesses (Assessment in the Primary School Curriculum 2007). It is important that children are actively involved in assessment and are allowed to provide feedback to the teacher about their own learning and also receive feedback from the teacher (Nicol & MacFarlane-Dick 2006). Projects are also an important assessment strategy. They enable collaborative learning which promotes deeper learning and higher learning outcomes (Genc 2016).

Fig 11: Q 11: Do you feel that SCL has benefits for students?
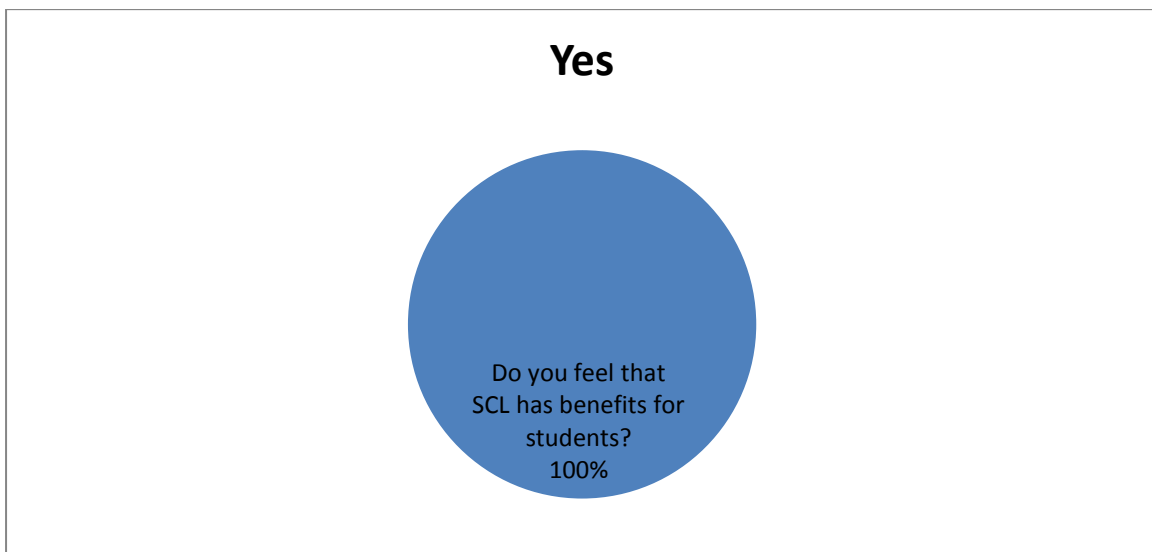
100% said that SCL has benefits for students. This result was expected. Previous literature and studies carried out on SCL has shown that SCL has huge benefits for students. SCL should provide the students with the opportunity to work with other students in their class, thus promoting deeper learning, higher outcomes and the ability to develop their knowledge, skills and understanding (Torenbeek et al. 2009).

Fig 12: Q 12: Do you agree that SCL benefits students in the following ways?
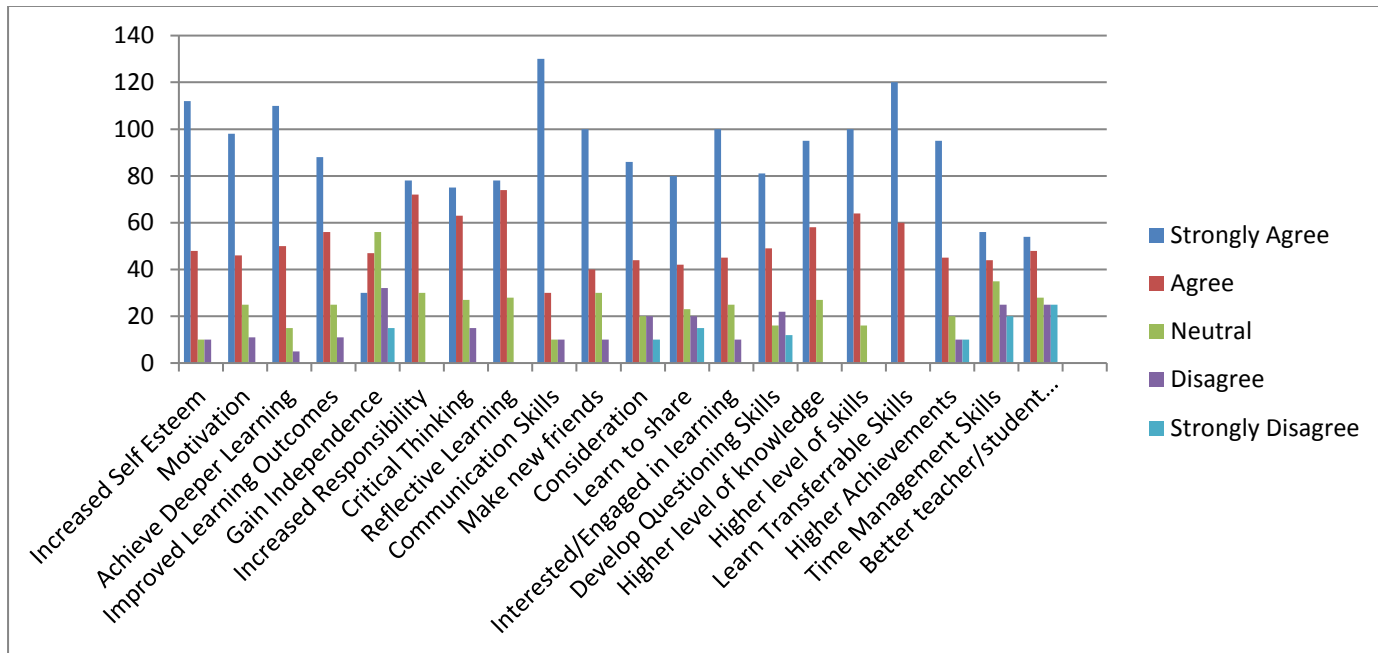
Fig 12 shows the results from the question – do you agree that SCL benefits students in the following ways? 62.2% said they strongly agreed that SCL improves students self esteem and 26.7% said they agreed. Only 10% said neutral or disagree and no one said strongly disagree. This is probably the most important benefit that SCL has for students. In a world that is changing dramatically and with the increase of technology and online bullying and mental health issues, nurturing your students self esteem should be top priority. SCL encourages collaborative learning and helps develop knowledge, skills and understanding, which all can help to increase one's self esteem (Gilis et al. 2008). 56.7% said they strongly agreed or agreed that SCL helped develop better students/teacher relationships. Attard et al. (2010) found in Principle 9 that learning needs cooperation between students and staff. When teachers and students work together, it can help to create a positive learning environment for all involved which helps encourage learning, increase motivation and help students achieve deeper learning.

80% said they strongly agree or agree that SCL increases student's motivation, 88.9% said they strongly agree or agree that SCL helps students achieve deeper learning, 80% said they strongly agree or agree that SCL help improve learning, 80.6% said they strongly agree or

agree that SCL helps to increase interest or engagement in learning, 85% said they strongly agree or agree that SCL develops a higher level of knowledge in students, 92% said they strongly agree or agree that SCL develops a higher level of skills in students and 77.8% said they strongly agree or agree that SCL results in higher achievements. I was surprised to see that between 10% and 20% said that they were either neutral or disagreed that SCL benefited students in these ways. These statements are all linked together and relate back to the benefit 2 outlined in the SCL Toolkit by Attard et al (2010). SCL encourages deeper learning, motivation and increased engagement in learning. Table 6: Learning Pyramid shows how much information students retain if they are taught in a variety of ways through SCL. The pyramid says that when students are demonstrating they retain 50% of information, when they are doing they retain 75% of information and when they are teaching they retain 90% of information. Vygotsky and Piaget believe that when students are active in their learning their motivation is increased, they become more engaged in learning, they develop deeper learning, and they develop higher knowledge, skills and achievements (Cardwell et. el. 2000).

Only 42.8% said they strongly agree or agree that SCL helps students gain independence, 31.1% said neutral and 26.1% said they disagree or strongly disagree. While SCL can help increase responsibility as the teacher acts as a facilitator rather than a lecturer, I feel that the reason for this result is because a lot of SCL revolves around group work or collaborative learning. If students are involved in activities that encourage collaborative learning, then they may rely on their peers to do most of the work, thus decreasing independence. However 83.3% said they strongly agree or agree that SCL increases responsibility, 16.7% said neutral and 0% said disagree or strongly disagree. To me this result is a bit of a contrast to the previous one. However, I do understand where the result has come from. While some students might rely on their peers and therefore not gain independence, the onus is on the students to be actively involved in their learning, thus increasing responsibility.

76.7% said they strongly agree or agree that SCL benefits students critical thinking, 84.4% said they strongly agree or agree that SCL benefits students reflective learning, 82.2% said they strongly agree or agree that SCL help students develop questioning skills, 100% said they strongly agree or agree that SCL helped students learn transferrable skills and 55.5% said they strongly agree or agree that SCL helped students develop time management skills.

These results are backed up with the themes that I identified in the literature. Principle 1, Attard et al. (2010), states that SCL requires reflective practice. By reflecting on teaching and learning, teachers and students can help improve the learning experience. Gilis et al. (2008), states that SCL is the best teaching method for encouraging engagement and motivation in learning. Attard et al. (2010) believes that SCL benefits students in these ways through benefit 1, 5 and 7. Benefit 1 of the SCL Toolkit, says that SCL helps make students an integral part of the community. They state that SCL encourages students to think for themselves and to develop critical and analytical skills. When student's views and opinions are valued by having a say in how they learn and what they learn, it increases engagement and interaction. Benefit 5 says that SCL enables students to reflect on their own learning thus enabling to them to improve their own learning. SCL also encourages teachers to reflect to improve their teaching. Lea et al. (2003) agrees with this in saying that reflection for both teachers and students is one of the main elements of SCL. Benefit 7 says that students, who have experienced a SCL teaching approach, are enabled to solve problems, reflect on their learning and develop lifelong learning skills (Attard et al. 2010).

88.9% said they strongly agree or agree that SCL helped develop communication skills, 77.8% said they strongly agree or agree that SCL helped students make new friends, 72.2% said they strongly agree or agree that SCL helped students to be more considerate of others and 67.7% said they strongly agree or agree that SCL helped students learn how to share. When students work together, they learn how to share their ideas and listen to others ideas, thus developing their communication skills. If students are involved in different groups for different lessons, it can help students to make new friends. When working together on a project, students need to learn to share tasks and need to consider the feelings and opinions of others. SCL helps to develop all these skills in students (Gilis et al. 2008).

Chapter 5: Conclusions and Recommendations

This chapter will look at the conclusions that have been drawn from the literature review and from my own research. It will then suggest recommendations to improve SCL in schools.

5.1 Conclusions

To draw conclusions from the literature and my research, it is vital to look back at my research question and objectives. Firstly the research question - 'What methods of SCL are used in the primary classroom and what are the benefits of SCL for students'? In order to answer this research question, I set out four objectives. I will now look at each objective in turn to draw conclusions.

My first objective was to establish what Student Centred Learning is. Through reading the literature, I found a definition of SCL. In simple terms, SCL is a learning approach which is broadly related to constructivist theories. It is characterised by innovative teaching methods and aims to promote communication, activity based learning, transferrable skills, problem solving, critical thinking and reflective learning (Attard et al. 2010). Given and Santa (2010) found that SCL has four main features, "active responsibility for learning, proactive management of learning experience, independent knowledge construction and teacher as facilitators" (Given and Santa 2010, pp.16-18). Lea et al. (2003) also outlined elements of SCL and said that, students should be active in and responsible for their learning and that SCL should encourage deeper learning and reflection.

My second objective was to find out what methods of Student Centred Learning are being used in primary school classrooms. Through my questionnaire and analysis of results, I found that there are a wide range of SCL methods being used in primary schools in Donegal. SCL is used a lot in the younger classes – Junior Infants to 2nd class. However more could be done to encourage SCL in the older classes – 3rd class to 6th class. Also SCL is used a lot in the subjects that lend themselves well to SCL, such as SPHE, drama, art, music and P.E., whereas more could be done to encourage SCL in the core subjects of mathematics, English and Irish. The methods of SCL that were most commonly used were paired work, group

work, free play, structured play, role play, outdoor learning and hands on activities. These are all methods that can be used to ensure that you are teaching to the different learning styles of your students. A mixture of teacher- led and student-led activities should be used so that the students have the opportunity to use and apply the knowledge and skills they have developed (Primary National Strategy 2006). The internet or videos were not used as much as I think they should be. Inquiry based learning and problem based learning were used a lot in the older classes. There could be more done to encourage learning stations and peer teaching, but this is difficult as teachers are limited in primary schools in Donegal. With regards to the different learning styles, my research found that teachers were using a wide range of learning styles to meet the different learning needs of their students. I was glad to see from my research that students were starting to become somewhat more involved in some of the decision making in the classroom. However, more work could be done to encourage the element of choice for students in the classroom. The majority of teachers said that students were never or rarely involved in the decision making of most of the statements. Only between 20% and 40% said that their students were sometimes or often involved in the decision making of all of the statements. Rogers believes that student's perceptions of the world are important and feels that students must have a choice in their learning and that they should be allowed to have an input into their learning (Hacksaw 2008). This is in agreement with Attard et al. (2010) principle 5 and 7 which says that choice is central to SCL. They say that students should have control over their learning and should be involved in an element of choice in their learning.

My third objective was to find out what the benefits of Student Centred Learning are for students. My research has shown that SCL has huge benefits for students. Some of these benefits include increased self esteem, motivation, deeper learning, reflective learning skills, communication skills, increased interest in learning, developing questioning skills and achieving higher level of knowledge, skills and transferrable skills. This is in agreement with what the literature says. Attard et al. (2010) set out a list of seven benefits that SCL can have for students. They state that SCL provides students with skills for life, helps create independent learners while at the same time helps develop collaborate learning. SCL responds to the ever changing and differing needs of students. My research is in agreement with Attard et al. (2010). Through SCL, students become more motivated and develop an increased interest in learning if they have a choice in how they learn and what they learn.

This is backed up by Piaget and Vygotsky as they both state that being an active learner increases interest, motivation and deeper learning (Cardwell et. el. 2000). Table 6: Learning Pyramid in section 4.2 shows how SCL can encourage deeper learning. However, my research has shown that the majority of respondents did not think that SCL helped students gain independence. I feel that this is because SCL encourages collaborative learning and thus students can start to rely on their peers to help them with their work. Some students may let others take over and are happy for them to do that. My research also found that the majority of the respondents felt that SCL can help develop better teacher/students relationships.

My fourth objective was to find out what methods of assessment teachers feel are important for SCL. Through my research, I found that teachers feel that formative assessment and assessment for learning are very important for SCL. These types of assessment are long term, continuous assessment that gives teachers a full insight of their student's knowledge, skills and understanding. The majority of respondents did not feel that summative assessment or assessment of learning were important for SCL. These types of assessment only look at a grade or a percentage. They do not show the full ability of students. Some students may be highly intelligent when it comes to art or drama but these types of subjects are not tested on the standardised tests that are involved in summative assessment. A quote, which is credited to Einstein, that I feel is very important when discussing the different types on intelligences and which is the motto that I try to live my life by is "If you judge a fish by its ability to climb a tree it will live its whole life believing it is stupid". The respondents also felt that self-assessment was very important for SCL. Self-assessment enables students to reflect on their own learning and improve on it (Nicol and MacFarlane-Dick 2006). Providing feedback was also listed as an assessment strategy that is important for SCL. Biggs (2003) developed the idea of 'constructive alignment' and says that this is vital when creating SCL. He states, that there are three aspects to 'constructive alignment' and that they must all be aligned in order for teaching and learning to be effective. The three aspects are learning outcomes, learning and teaching activities and assessment. He states that feedback is a vital part of this and that it is essentially the glue that holds the other three aspects together. Feedback enables students to find out the gaps they have in their knowledge and it enables the teacher to develop lessons and learning outcomes that will help the students fill that gap.

5.2 Recommendations

Although most of the research that I found was positive and shows that teachers are using SCL in the classroom, there is room for improvement. Attard et al. (2010) believes that to encourage the use of SCL, the culture or mindset of the whole educational system and then individual schools need to be addressed. There is a lot of debate in education about whether change happens from the top-down or the bottom-up. I believe that it needs to be a mixture of the both. Educational leaders have expertise in policy making and have access to resources. Teachers have expertise on the ground. They know what works and what does not work. To improve SCL in primary school classrooms, Attard et al. (2010) shared a policy cycle that would help. The policy cycle begins with defining the problem, setting the agenda for change, developing a policy, implementing the policy and evaluating the policy. A good policy cycle acknowledges that both the leaders and those on the ground have a role to play. If everyone is on the same wave length there is a better chance that the change will be effective.

Table 7: Policy Cycle
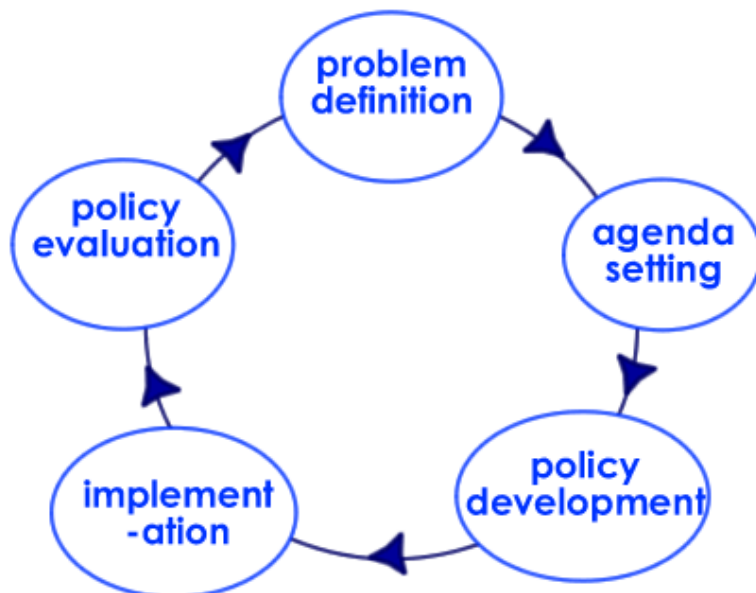
From my research, I have identified several areas that need to be improved upon and I will know outline recommendations to improve SCL in schools. Many of the respondents said that they often use SCL in subjects like art or drama but this was not the case for the core subjects

of mathematics, English or Irish. I feel that this needs to be changed. These subjects, when delivered by a teacher lecturing or the students reading out of a book themselves can become quite tedious. Students can come to detest these subjects and they find them 'boring'. If SCL was incorporated more into these lessons, then it would help develop motivation and interest in the students.

Another area that needs to be improved on is the fact that teachers that teach the younger students are using SCL most often. Students in the older classes tend to sit in rows rather than in groups, tend to work from textbooks rather than be involved in hand-on activities and told to sit in silence rather than communicating with their peers. It has been proven that collaborative learning improves learning outcomes and enables deeper learning. When students have to share their ideas with others and they have to listen to others, learning is improved, as students can gain knowledge and understanding from their peers (Genc 2016).

My third recommendation is that students need to have more choice in their learning. Attard et al. (2010) identified choice as one of the key principles of SCL. They say that choice is central to SCL. Having an element of say in what they are learning and how they learn, can help to motivate the students and can help increase interest and engagement. Students can be involved in the decision making of the learning outcomes, the teaching methods and assessment strategies.

My fourth recommendation is that teachers should be using more technology. Only about 60% of respondents said that they sometimes or often use the internet or videos in their lessons. Technology is improving every day. The internet is a great resource for students and teachers. I feel that every school should be provided with either thirty laptops or thirty tablets. Each class should have computer lessons incorporated into the timetable. The internet is a great resource for students when doing project work, which would help improve collaborative learning and help develop communication skills and transferrable skills.

It is my hope that, through my research question and the four objectives outlined above, that I would develop a better understanding of SCL, the methods that are used in primary schools and the benefits that SCL has for students. I feel that through my literature review and my research questionnaire, I have been successful in doing this. I now have a better understanding of the methods of SCL that are used in primary schools in Donegal, including assessment methods for SCL and the different learning styles that are used. I also have a better knowledge of how SCL can benefit students. It is my hope that teachers, principals and educational bodies could learn more about SCL by reading this dissertation.

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APPENDIX 1: APPROVED ETHICS APPLICATION

Appendix 2: Participant Consent Form

Consent Form

Research Involving Human Participants

Project Title: An investigation into what methods of Student Centred Learning are used in the primary school classroom and what the benefits of SCL are for children.

Principal Investigator: Joanne Loughrey

The aim of the proposed research is to investigate the different methods of Student Centred Learning are used in the primary school classroom and what benefits SCL has for the children. The term student-centred learning refers to a wide variety of educational programs, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students. The identity of the subjects will remain anonymous and the research will be used for the purpose of the research only. All participants will be anonymised on my laptop and a password will be set. All information will be confidential. You can withdraw from the research at any time until the analysis of the data begins.

Declaration: I acknowledge that:

☐ I have been informed about the research

☐ I consent to partake in this study

☐ My participation is voluntary

☐ I can withdraw at any time until the analysis of the data begins

☐ I consent to the publication of results

☐ I know that all information will be kept confidential

Participant's Name: _____

Contact Details:

_____

_____

_____

Signature:_____Date:_____

Appendix 3: Participant Information Sheet

Questionnaire Information Sheet

Project Title: An investigation into what methods of Student Centred Learning are used in the primary school classroom and how SCL benefits the children.

Researcher: Joanne Loughrey - XXXX

Supervisor: George Onofrei – george.onofrei@lyit.ie

The aim of the proposed research is to investigate the different methods of Student Centred Learning are used in the primary school classroom and what benefits SCL has for the children. The term student-centred learning refers to a wide variety of educational programs, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students. The identity of the subjects will remain anonymous and the research will be used for the purpose of the research only. All participants will be anonymised on my laptop and a password will be set. All information will be confidential. You can withdraw from the research at any time until the analysis of the data begins.

I have read the information sheet and I fully understand the contents within it.	Yes ☐	No ☐
I agree to take part in this research programme.	Yes ☐	No ☐
I am aware that my participation in the programme is voluntary and that I can withdraw at any time.	Yes ☐	No ☐
I am aware that withdrawal from the programme will not affect my right to use services or legal rights.	Yes ☐	No ☐
I give consent to the publication of results.	Yes ☐	No ☐
I give consent for the data from this study to be used in future studies without the need for the researcher to contact me again for consent.	Yes ☐	No ☐
I understand the purpose of the research.	Yes ☐	No ☐

Thank you for taking the time to read the information sheet. I hope you will partake in the questionnaire.

Joanne Loughrey

Appendix 4 – Student Centred Learning Questionnaire

This questionnaire has been designed to find out what methods of Student Centred Learning (SCL) teachers are using in primary schools in Donegal, what benefits teachers feel that SCL has for students and what methods of assessment teachers feel are important for SCL. This data is being collected anonymously, so as to encourage honesty in your answers. The questions can simply be answered by ticking the relevant answer. The questionnaire will take approximately 5 minutes. Thank you for your time.

1. How long have you been teaching for?

        Less than 5 years   ☐
        6 – 10 years   ☐
        11 – 15 years   ☐
        16 – 20 years   ☐
        21 – 25 years   ☐
        26 – 30 years   ☐
        More than 31 years   ☐

2. What class/classes do you currently teach? Please tick all answers that are relevant to you.

        Junior Infants   ☐
        Senior Infants   ☐
        1st Class   ☐
        2nd Class   ☐
        3rd Class   ☐
        4th Class   ☐
        5th Class   ☐
        6th Class   ☐

3. Do you use SCL in your class?

        Yes   ☐   No   ☐

4. How often do you use SCL?

        All lessons   ☐
        Most lessons   ☐
        Some lessons   ☐
        No lessons   ☐

5. How often do you use SCL in each subject?

	Never	Rarely	Sometimes	Often	Always
Mathematics	☐	☐	☐	☐	☐
Irish	☐	☐	☐	☐	☐
English	☐	☐	☐	☐	☐
Religion	☐	☐	☐	☐	☐
Geography	☐	☐	☐	☐	☐
Science	☐	☐	☐	☐	☐
History	☐	☐	☐	☐	☐
SPHE	☐	☐	☐	☐	☐
Visual Art	☐	☐	☐	☐	☐
Music	☐	☐	☐	☐	☐
Drama	☐	☐	☐	☐	☐
PE	☐	☐	☐	☐	☐

6. Which of the following methods of SCL do you use?

	Never	Rarely	Sometimes	Often	Always
Paired Work	☐	☐	☐	☐	☐
Group Work	☐	☐	☐	☐	☐
Free Play	☐	☐	☐	☐	☐
Structured Play	☐	☐	☐	☐	☐
Role Play	☐	☐	☐	☐	☐
Hands on Activities	☐	☐	☐	☐	☐
Brainstorming	☐	☐	☐	☐	☐
Videos	☐	☐	☐	☐	☐
Internet	☐	☐	☐	☐	☐
Visual Displays/Aids	☐	☐	☐	☐	☐
Project Work	☐	☐	☐	☐	☐
Learning Stations	☐	☐	☐	☐	☐
Peer Teaching	☐	☐	☐	☐	☐
Inquiry Based Learning	☐	☐	☐	☐	☐
Problem Based Learning	☐	☐	☐	☐	☐
Activity Based Learning	☐	☐	☐	☐	☐
Outdoor Learning	☐	☐	☐	☐	☐
Games	☐	☐	☐	☐	☐
Competitions	☐	☐	☐	☐	☐
Debate	☐	☐	☐	☐	☐
Show & Tell	☐	☐	☐	☐	☐

7. Do you use different learning styles in your lessons to meet the needs of your students?

Yes ☐   No ☐

8. How often do you use each different learning style in your lessons?

	Never	Rarely	Sometimes	Often	Always
Visual (spatial)	☐	☐	☐	☐	☐
Linguistic	☐	☐	☐	☐	☐
Logical	☐	☐	☐	☐	☐
Musical	☐	☐	☐	☐	☐
Kinesthetic	☐	☐	☐	☐	☐
Interpersonal	☐	☐	☐	☐	☐
Intrapersonal	☐	☐	☐	☐	☐
Naturalistic	☐	☐	☐	☐	☐

9. Are your students involved in the decision making of any of the following?

	Never	Rarely	Sometimes	Often	Always
Learning Outcomes	☐	☐	☐	☐	☐
Assessment Strategies	☐	☐	☐	☐	☐
Classroom Management	☐	☐	☐	☐	☐
Rewards/Sanctions	☐	☐	☐	☐	☐
Classroom Layout	☐	☐	☐	☐	☐
Classroom Timetable	☐	☐	☐	☐	☐
Lessons	☐	☐	☐	☐	☐
Teaching Methods	☐	☐	☐	☐	☐
What they learn	☐	☐	☐	☐	☐
How they learn	☐	☐	☐	☐	☐

10. What methods of assessment do you feel are the most important for SCL?

	Important	Neutral	Not Important
Summative Assessment	☐	☐	☐
Formative Assessment	☐	☐	☐
Assessment of Learning	☐	☐	☐
Assessment for Learning	☐	☐	☐
Self Assessment	☐	☐	☐
Peer Assessment	☐	☐	☐
Observation	☐	☐	☐
Questioning	☐	☐	☐
Class Tests	☐	☐	☐
Formal Exams	☐	☐	☐
Portfolios	☐	☐	☐
Projects	☐	☐	☐
Providing Feedback	☐	☐	☐
Homework	☐	☐	☐

11. Do you feel that SCL has benefits for students?

      Yes ☐   No ☐

12. Do you agree that SCL benefits students in the following ways?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Increased Self Esteem	☐	☐	☐	☐	☐
Motivated to Learn	☐	☐	☐	☐	☐
Achieve Deeper Learning	☐	☐	☐	☐	☐
Improved Learning Outcomes	☐	☐	☐	☐	☐
Gain Independence	☐	☐	☐	☐	☐
Increased Responsibility	☐	☐	☐	☐	☐
Critical Thinking	☐	☐	☐	☐	☐
Reflective Learning	☐	☐	☐	☐	☐
Communication Skills	☐	☐	☐	☐	☐
Make new friends	☐	☐	☐	☐	☐
Consideration	☐	☐	☐	☐	☐
Learn to share	☐	☐	☐	☐	☐
Interested/Engaged in Learning	☐	☐	☐	☐	☐
Develop questioning skills	☐	☐	☐	☐	☐
Higher level of Knowledge	☐	☐	☐	☐	☐
Higher level of Skills	☐	☐	☐	☐	☐
Learn Transferrable Skills	☐	☐	☐	☐	☐
Higher Achievement	☐	☐	☐	☐	☐
Time Management Skills	☐	☐	☐	☐	☐
Better teacher/student relationships	☐	☐	☐	☐	☐

Thank you for taking your time to complete this questionnaire.