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The most effective differentiation methods in PPE Classrooms

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The most effective differentiation methods in PPE Classrooms

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Abstract

A self-study, semi-structured interviews (N =2), questionnaires (N =30) and DR was used to gather primary data of PPE in Irish public schools. *Probability/Non-Purposive sampling* was undertaken, and inclusivity criteria adopted. Thematic analysis identified that educators should connect and build relationships (incl. extra-curriculum engagement) with students before implementing differentiation strategies. Successful strategies include differentiating instruction, worksheets, notes, homework, and tests; with active strategies such as using ICT, groupwork and mind maps; monitored via student achievement. The EPSEN Act (2004) requires reform and further address provided by the DoE. Limitations and recommendations for future pedagogical practice and research have been outlined.

List of Acronyms and Abbreviations

AEN: Additional Educational Needs

ASD: Autism Spectrum Disorder

CAO: Central Applications Office

DEIS: Delivering Equality of opportunity In School

DoE: Department of Education

DR: Documentary research

EPSEN: Education of Persons with Special Educational Needs

GDPR: General Data Protection Regulation

ICT: Information and communication Technology

L2LP: Level 2 Learning Programme

NCCA: National Council for Curriculum and Assessment

PMEPP: Professional Master of Education in Post Primary Teaching

PP: Post Primary

PPE: Post Primary Education

SEN: Special Educational Needs

SEPP: School Experience and Professional Practice

SNA: Special Needs Assistant

ZPD: Zone of proximal development

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Chapter One: Introduction

1.0 Origin of the Dissertation

This study originated from personal interest and previous experience throughout a previous employment and various teaching practices during the Professional Master of Education in Post Primary Teaching (PMEPP). In 2020, the researcher decided to take a year out from education and secured a job working as a Special Needs Assistant (SNA) in a former secondary school. Since then, the idea of differentiation and differentiated work was a real eye opener and one that some teachers really struggled with in the classroom. This was also the main concern for student teachers on the PMEPP course before and after each of their School Experience and Professional Practice (SEPP). During mentis and other student feedback tools, differentiation was always a major issue whether it was something students were nervous about before embarking on a SEPP phase or if it was something they could have improved on; or wanted more confidence in after completing a SEPP period. As a result of time working as an SNA, personal experience during SEPP phases and hearing peer responses, this is an area that needs extensive research in how to better benefit the students who most need it.

1.1 Background to the Project

The Education of Persons with Special Educational Needs (EPSEN) act 2004 sets out clear guidelines that all students have the right to an education in an inclusive setting in a mainstream class (EPSEN, 2004). The Assessment in the Primary School Curriculum; Guidelines for Teachers believe that spending time getting to know your students is time well spent as it informs planning (NCCA, 2007). This brought about change in how teachers must now prepare for classes with reference to differentiation. According to Willis and Mann (2000), differentiation is ‘when teachers should adapt instruction to student differences’ whilst Heacox (2002) defines it as ‘changing the pace, level, or kind of instruction you provide in response to individual learners needs, styles or interests. Tomlinson and Allan (2000) state that modern classrooms are very diverse with regards to cultures and learning

levels and believe that students are entitled to an enthusiastic teacher. They claim that the goal of a differentiated classroom is maximum student growth and individual success.

1.2 Rationale

The researcher's motivation to investigate this topic was from their own personal interests and previous experiences during school placement blocks. There were two key elements behind this:

1. Whilst completing their PMEPP in Maths and Geography, the student teacher completed three blocks of placement and realised this was an area he would like to get more comfortable with and one that qualified teachers still struggled with.
2. The researcher is hoping to further their studies in the form of Special Education and Inclusive teaching and feels this research project would be a good starting point. They are hoping to secure a position as Special Educational Needs (SEN) Teaching soon and is hopeful this will benefit him.

1.3 Dissertation Layout

This dissertation will have six main chapters, introduction, literature review, methodologies, findings, discussion, and conclusion. Each chapter will be structured with an introduction, main body, and conclusion. The chapters will have subheadings in them which will allow for fluidity for the reader and make it easier for them to follow. The introduction will be divided into the origin of the dissertation (where the idea came from), the background to the project (previous policies and research), the rationale of the project (why it is important to investigate this topic), the layout of the dissertation (the order of the thesis) and finally, the conclusion, (summarising all the above). The other chapters will follow a similar pattern whereby they will be broken down into an introduction, main body with sub chapters, and a conclusion.

1.4 Conclusion

In summation, this topic is one that is close to the researcher from previous work experience and an area of career development that the researcher plans to pursue as a classroom strategy. The need for differentiation is an area that is becoming increasingly more popular in contemporary post primary settings as the number of students who have additional needs is getting higher and higher each year. Furthermore, the role of a Special Educational Needs (SEN) teacher is a career that the researcher would like to pursue once the current PMEPP is

completed; gaining greater insight into this differentiation classroom strategies would be greatly beneficial. The researcher believes that it is an ever-increasing area that needs extensive research as more and more pupils are attending contemporary classrooms with different cultures or additional needs. As a result, chapter two will focus on all scope of previous published academic literature and policy which will provide the researcher with further insight on this topic of interest.

Chapter Two: Literature Review

2.0 Introduction

This literature review will the most recent research journal articles, books, newspaper articles, theses, and theories all associated with differentiation in the classroom. The aim of this literature review is to extensively assess prior investigations around the topic of differentiation. Although difficult to examine all previous documents, the literature review will scrutinise the most important papers in depth for critical discussion. The researcher's principal intention is to gain a greater insight into this topic and critically evaluate the relevant sources relating to the need for differentiation and ways to differentiate. Upon completion of this literature review, key questions will arise that the researcher must then investigate. This literature review has four confined subdivisions:

1. The Need for Differentiation
2. The Use of Differentiation by Teachers
3. Non-Academic Results of Differentiation
4. How to Implement Differentiation

2.1 The Need for Differentiation

Tomlinson et al. (2003) argue that modern classrooms have become increasingly diverse and that mixed ability classrooms in Ireland are no different to this worldwide trend (Westwood, 2015). Diversity among the student population manifests in terms of, but not limited to, culture, race, language competency, socio economic needs, academic needs (gifted or special needs), motivated or unmotivated learners and identity. As argued by Sizer (1985), and Stradling & Saunders (1993), it is no longer a case of whether/if a teacher should accommodate the diverse needs in their classroom presented by their students, the choice is no longer theirs. The key question relating to differentiation, in our current societal climate, is that of how the teacher will respond to the varied needs of the learners in front of them. While heterogeneous teacher instruction can be seen as valuable as it addresses the question of equal access to the same educational content or "equality of opportunity" for learners it

does not address the concept of “equity of opportunity” (Tomlinson et al., 2003). The latter concept considers each individual learner has diverse circumstances which will affect their ability to access the curriculum equally and so accommodations need to be made and supports / resources introduced so that each learner can reach an equal learner outcome. It is the responsibility of the teacher to foster a more inclusive learning environment through modifications to the learning instruction and accommodation of all differences that is indicative of their class. The teacher must do this by creating a healthy classroom environment and ensuring all students feel welcome to ask a question or give their point of view. It will be much harder for a teacher to achieve in differentiating lessons if students are afraid to ask questions or ask their teacher to explain something in a different way. Put simply differentiation can be defined as:

“Teaching things differently according to observed differences among learners”.

(Westwood, 2015).

2.2 The Use of Differentiation by Teachers

It must be noted that recent empirical research by Pozas, Letzel, and Schneider (2020) has showcased there is mixed evidence on teachers' reported use of differentiated instruction; results gleaned in the German educational context of this journal noted that teachers did not use differentiated instruction consistently in their classroom pedagogy instead only using it occasionally. It is important to note here that differentiation is not only for students with additional needs or learning difficulties, rather every student will more than likely need differentiated instruction at some stage in their education journey, even those that excel at school. While the benefits of differentiation have been highly published by Valiande and Koutselini (2009), Reis et al. (2011) and Baumgartner et al. (2003) resulting in increased achievement for those who experienced differentiated instruction compared to those who did not, it can be challenging as well as time consuming for teachers to meet the needs of all students in an inclusive environment. This adds into a teacher's preparation time as to how they may introduce a new topic, explain a key concept, or devise differentiated worksheets or homework. It has also been noted by the research from Reis et al. (2011) that many teachers can feel overwhelmed by the sheer number of differentiated strategies that exist to meet the diversified needs of their classroom. Not all classes are the same, and not all learners learn the same way, so, being able to alter choose which strategies work best for specific groups is an achievement of its own. Moreover, teachers have reported that their teaching training has

under prepared them for the implementation of differentiated instruction in the modern classroom (Idol, 2006), while some teachers reported they do not possess the understanding of the concept of differentiation to engage with the practice (Whipple, 2012). However, as educators - when we move away from “teaching to the middle” (a phrase which implies you teach to the cohort of students in your classroom that are indicative of the widest part of the bell curve), to teach to the individual needs of the student, this is differentiation at its core. It is also important to differentiate for those at the top of the class to push them to greater limits. Having extra work ready for them whilst completing a class work activity is vital as some may complete quicker than others. Moreover, giving the stronger students more difficult questions as an option for homework might be another example. While differentiated instruction supports all students it is noticeably most advantageous to students who present with additional educational needs or AEN ensuring that this group of students are “counted in” by making academic tasks achievable for them based on their profile of needs (Westwood, 2015).

To summarise, differentiation is best implemented based on 3 key facets of student engagement:

1. Student readiness
2. Student interest
3. Student learning profile

These areas of differentiation in relation to the PPE classroom will be further discussed in the following sections (2.3.1 – 2.3.3), below.

2.2.1 Student Readiness

Differentiation about student readiness is based on the theory of Vygotsky (1978 & 1986), who noted that students learn in their own ‘zone of proximal development (ZPD)’. This can be viewed as the space between what the student can achieve with support and guidance from peers/adult compared to failed mastery on their own. Within this distance range between point A and B is where new learning will take place. It is the responsibility of the teacher to take the student from their own zone of proximal development and guide them through a slightly more complex skill until the required self-learning takes place (so that they achieve mastery). Repeated cycles of this approach allow opportunity for the student to learn new skills, ideas and concepts while forming problem solving techniques and independent thinking (Tomlinson et al., 2003). Research by Bransford, Brown, and Cocking (1999)

supports this view that students work best at a moderate level of challenge, *not too difficult nor too easy*, for learning to take place so that their efforts to succeed at the task will be sustained even in the face of challenges. Therefore, the method of providing a single homogeneous task of academic work for all learners in your classroom proves futile in progressing the student beyond their own independent zone of proximal learning. This is where differentiation of task will reflect different students' abilities and support them in closing the distance between their ZPD and mastery. Grouping of students with similar levels of learning proficiency will aid teachers in reducing the level of learning difficulties in the class or at the very least alleviate it. Failure to do so has had negative impacts (Csikszentmihalyi, Rathunde, and Whalen (1998)). When students were asked to complete tasks which were outside their level of readiness, their achievement scores and feelings of self-worth decreased. This may also lead to the students falling out of love with a particular subject and hate that lesson each day, which could have been easily avoided.

2.2.2 Student Interest

Differentiation of curriculum and instruction in response to student interest can also be referred to as differentiation by process: where the methods, materials, and resources that a teacher uses in their classroom to access the curriculum are differentiated. Changing teaching instruction to include or touch on the interests of students has been shown to increase student motivation and achievement (Amabile, 2018). When the content you are teaching aligns to the interests of the student (whether that be their cultural background, gender, their identity, their interests), it can allow for the opportunity for the student to be seen and heard; contributing to an increased sense of belonging and a higher level of student engagement in the classroom as they are more motivated to learn. This is another way a student may grasp a new complex concept. Once a student understands a new topic from the offset, there is a higher chance of the learner being engaged and following the lesson. Immanuel Kant, a famous philosopher from the 18th century famously said 'no precepts without concepts' which meant we cannot see things without an idea it originated from (Inglis and Aers, 2008). Building a relationship with your students and knowing their interests is key in this situation. There is no point explaining a new concept to someone through sport if that student has little interest in sport, rather, they prefer to read or play video games.

2.2.3 Student Learning Profile

Finally, differentiation based on the students learning profile or their preferred mode of learning, can also be referred to as differentiation by outcome. Learning profile can be influenced by several factors such as learning style, intelligence preference, gender, and culture (Tomlinson et al., 2003). This refers to the means in which students can convey their learning. In this section, the concept of learning styles will be considered, particularly active learning strategies such as peer assessment, groupwork, and Information and Communications Technology (ICT). There is more onus on teachers in recent years to keep students engaged in lessons rather than just reading from a book (as undertaken in traditional classroom learning strategies). Bonwell and Eison (1991) has debated that students participate better in the classroom when they are doing 'something' during the lesson rather than just passively learning. Ting et al. (2022) proved from their investigation that active learning has a huge positive impact on student performances in the classroom. One of the benefits of the Covid 19 pandemic would be the increased integrated use of ICT in contemporary classrooms. In a time where teenagers are constantly on some form of technology, it is a good idea to try get students to learn through ways they find most enjoyable, such as ICT.

2.3 Non-Academic Results of Differentiation

Whilst academic achievement is necessary, it is also important to be aware of the non-academic results for students. In an era where student wellbeing and mental health is paramount to the students before any learning can be achieved, active teaching styles can also have positive effects in this regard. As has been previously referred to, teachers use differentiated instruction to include students with additional needs; however, differentiation aims to support all students' academic learning while developing their social and emotional needs. Research has tended to focus primarily on the academic progress that students can achieve with differentiated instruction while ignoring the non-academic student outcomes, such as the social and emotional progress. Pozas and Schneider (2020) argue for the importance of exploring how differentiation effects the collective outcomes for students. The three tenets of non-academic outcomes which have been noted recently by academic researchers are students' well-being, social inclusion, and academic self-concept (which will be further reviewed within this thesis).

2.4 How to Implement Differentiation

A system by where teachers can introduce differentiated instruction is based on five fundamental principles put forward by Suprayogi and Valcke (2016). These principles are coping student diversity, adopting specific teaching strategy, introducing a variety in learning activity, monitoring individual student needs, and pursuing optimal learning outcomes. This is a simple yet effective method to monitor and review whether differentiated instruction has taken place and whether it has been successful for the intended cohort of students targeted in specific groupings. The responsibility is on the teacher, based on their understanding and familiarity with their students to select which strategies of differentiated instruction would suit which learners best to progress their academic development to achieve individual optimised learning outcomes.

2.5 Conclusion

To conclude, the researchers has achieved a greater insight into what differentiation is and what is the need for differentiation, the use of differentiation by teachers, non-academic results of differentiation and ways to implement differentiation. There are more and more responsibilities being put on teachers in relation to this topic and it is no longer if the teacher wants to do it, rather a must by the teacher. Furthermore, in an age where student wellbeing is essential before any learning is achieved, it was also noted that differentiation also has a positive impact on a student's social and emotional progress. Finally, differentiation cannot be implemented unless a teacher understands and has a good rapport made with their students. The educator must be able to relate to their pupils by means of their interests and thus, determine what is the best way to differentiate for that student/ class. The research questions that have materialized from this literature review are as follows:

1. Are teachers resourced to implement differentiation in the classroom?
2. What are the main ways a teacher differentiates in their class?

The creation of these questions was a difficult task as there are so many questions that have arose from this literature review. However, the researcher believes these are the most important and relatable questions that need to be answered in relation to this research project. The methodological and design outlined in Chapter 3 will further frame the philosophy and strategy adopted, the sampling strategy (and inclusivity clauses) that the primary data from an independent case-study will be generated to review and verify the proposed research questions of this chapter.

Chapter Three: Methodology

3.1 Introduction

In this chapter, we will discuss the methodology and design that has been used in this study and the rationale presented on why the researcher felt that the selected design was the best way to obtain the primary data of the independent survey. Somekh and Lewin (2005) dispute that methodology in research is ‘the collection of methods or rules’ along with the ‘principles, theories, and values’ whilst research undertaken by University of the Witwatersrand in Johannesburg (2023) state that it is the ‘*specific* procedures or techniques *used to identify, select, process, and analyse* information about a topic.’ Put simply, it is how the researcher collates data on a topic of interest and how the primary data is analysed that is fundamental in the research design in the context of the dissertation. Data can be obtained through qualitative, quantitative, or mixed method approaches by ways such as questionnaires, surveys, interviews, focus groups etc. Choosing which approach to use is the most important part before embarking on this research journey, determined by the valid methodology to gather the appropriate data needed. This chapter will be conveyed under the following headings: research paradigm, methodology, approach and research methods, sample and participants, data analysis, rigour, limitations, and ethical issues and consideration.

3.2 Research Paradigm

The goal of this case study is to review the most effective classroom differentiation methods; how differentiation can be improved and ways to succeed in process of improvement and implementation. It focuses on the teacher’s ability to differentiate a lesson. Kuhn (1962) disputes that research paradigm is the philosophical way a scholar thinks, while Mackenzie and Knipe (2006) describe it as the ‘worldview’ of any researcher. In simple terms, the selected paradigm is the chosen methods that a researcher will use to conduct its study; and interpretate its findings. The three paradigms that can be undertaken by a researcher are positivism, interpretivism and pragmatism. In this thesis, a pragmatist approach will be undertaken as it is what works best for this project. John Dewey was one of the most notable

pragmatists and a founder of it, the American believed that people gain knowledge of things through a hands-on approach.

3.3 The Methodology Approach

Cohen, Manion and Morrison (2011) stated that one cannot just pick their approach by preference or automatic decision, rather, they must pick the approach that is fit for purpose. As a result, it was decided that a *mixed methods approach* would be best adopted to obtain the required information. As data can be collected through qualitative, quantitative or a mixed methods approach; the mixed methods approach has areas of both qualitative and quantitative methods. The researcher's rationale for choosing this approach was based on a review that it would best suit the project on a *self-study approach*; whereby, different classes (within a PPE setting) can be observed to see differentiation methods in use and enable these observations to construct semi-structured interviews with teachers (in one's own subject area) and devise questionnaires (with feedback from teaching staff across different subjects).

Merriam and Tisdell (2016) explains that qualitative research as an understanding of people's experiences whereby it uses words as answers (rather than numbers). Data collected through qualitative research can be gathered via case studies, action research, self-study, semi-structured interviews, focus groups, journalling, and observations.

Goertzen (2017) claims that quantitative research can highlight learnings over different datasets or study groups but not the motivation behind an answer (from an interviewee and/or respondent). Essentially, it is the process of gathering and scrutinising numerical data through surveys and questionnaires.

Verification of the findings from the semi-structured approach will be undertaken via a critical review of the most recent published academic studies and policy research literature. *Documentary research*, an additional methodology will be used to review the available materials available in publication from theorists that author governmental policy literature and academic researchers. A widely known advantage to documentary research is the expansive accessibility to documents; allowing one to review multiple variants within datasets (Denscombe (2014)). The use of edited versions of documents also pose difficulty in the distinction of primary and secondary data, resulting in a "*hybrid source*" of referred information with a limitation of one if the referral to published research upholds full academic

credibility. These limitations will be further briefly discussed under *rigour* in section 3.7, below.

3.4 The Selected Research Design

The researcher opted for self-study, semi-structured interviews, and questionnaires as the three ways that would be used to gather their primary information for the surveyed conducted. Schulman (2004) believes that a *self-study survey* is when the practitioner can devise their own ‘wisdom of practice’ by means of critically reading books and articles and/or by ways such as observing a class in this context. The researcher believes this is an effective method to use in this study as it will be possible to be able to see differentiation techniques vividly whilst observing a class (in progress).

The *semi-structured interview* is one of the most popular modes of data collection according to DeJonckheere and Vaughn (2019). These academics explain it as a dialogue between researcher and participant and the purpose is to gather information from professionals with personal experience relating to a topic of interest. Both the self-study and interview are examples of qualitative research; Cohen, Manion and Morrison (2011) state that the semi-structured interviews have the questions and topics given where the questions can be open ended and/or prompted by the researcher.

The literature review (based on an aspect of documentary research) permitted the researcher to devise one’s initial research questions for the thesis; as well as verify the

3.5 Sample Strategy and participants

The school where the data was collected is an all-boys school in a large town with over 700 students and over 60 permanent members of teaching staff and SNA’s. *Probability and Non-Purposive sampling* were selected as the most appropriate sample strategy in the process of gathering primary data from the questionnaires. It was decided that there was a need to secure 30 questionnaires (N=30) at random from PPE teachers/ SNA’s to gather information from their personal experience and what they feel works best in differentiation classroom strategies. The probability sampling strategy is a common approach used in quantitative methodological approach. The questionnaire that was given out can be seen in Appendix B (but not all answers will be discussed in the findings chapter of this thesis).

It was also decided that two interviews (N=2) would be carried out in the study; one teacher from each of the geography and maths departments from a PPE school. An *inclusivity criterion* was adopted (in this case) allowing contrast to be reviewed in approaches / perceptions from experienced to newly qualified teachers: one teacher with 25+ years' experience and one teacher who was a recently qualified professional in the previous 3 years was interviewed in the study. The researcher felt that a comparative approach would be adopted to see if there were any differences in ideas / practices / philosophy which depended on when a teacher was qualified. The content and sequence of both interviews can be seen in Appendix A with each interview taking approximately 15 minutes.

The inclusivity criteria also included class teachers of the maths department and geography department being specifically selected / included in the study (as these are the subjects of the researcher). The researcher designed the questions for both the interview and questionnaire following on from the completion of the literature review. It was decided to conduct the interviews first, then distribute the questionnaires and finally, observe classes to review some answers in practice and how differentiation strategies in practice would work.

3.6 Data Analysis

The researcher analysed the data by thematic analysis and descriptive statistics as a mixed method approach was obtained. Clarke and Braun (2012) describe thematic analysis as a process of rigorously breaking down your data to try identifying certain patterns or themes to try and recognise any commonalities. Boyatzis (1998) argues that thematic analysis categorises and explains the information in great detail. After completing the interviews, common themes were apparent from both participants which made it easy for the researcher to present their findings. Common themes were also visible whilst observing different teachers and their teaching styles, particularly how they differentiated their lessons. Furthermore, an abundance of data secured from questionnaires also followed regular patterns and common themes were found. The data secured from the questionnaires also allowed the investigator to statistically describe the data. The researcher was able to showcase their data by using bar charts and pie charts to make it easy for the reader to follow.

3.7 Rigour

Rigour requires that the researcher critically reviews that all methodological procedures/processes carried out are quality controlled throughout a published study, i.e.

credibility, comprehensibility and authenticity are at the focal point of the study (Ahmed, 2010). The use of documentary research approach in the form of a literature review to critically verify and validate findings (from the researchers own derived primary data) is a well-recognised as an appropriate methodology, with its own limitations.

The researcher is satisfied that all primary data obtained in the independent case-study of this thesis was legitimate, fair, and free from any biased views. Although the questionnaires were anonymous, it was not a requirement that all teachers had to participate. Thus, the investigator was confident that if any teacher did not want to take part that they would not complete the questionnaire which alleviated any worries of biasness. The interview questions were devised in a simplistic matter so that participants could not go off topic. Similarly, for the most part of the questionnaires, answers just needed to be circled or one-word answers. Once again, this made it easier for both the participant and researcher as it gave them only a certain scope to answer their questions which also hindered their ability to be biased.

3.8 Limitations

Ross and Zaidi (2019) express limitations as any weakness in research that may affect the outcome and conclusion of the study. Limitations are things that get in the investigator's way, but they cannot do anything about it. One thing the researcher really struggled with was balancing their time doing the research project with placement and their own job. This was a tough period for the investigator as they felt at times, they were not progressing whilst trying to gather data or research previous literature. Moreover, the data gathered only gave the viewpoint of one school. These answers could potentially differ to those who may work in an all-girls school for example, or a DEIS school or a special school etc. In addition to this, the researcher wanted to observe the other teachers in the maths and geography departments, but similar timetables did not allow for this to happen. Finally, with differentiation being such a broad topic, the researcher struggled with coming up with questions for the interviewees as they had so many of them but knew it would not be feasible to ask all of them. However, the investigator is happy with the data he has gathered but if he was to do it again, he may confine the topic to just one area of differentiation, such as just focusing on group work or the use of ICT in the classroom etc.

3.9 Ethical Issues

The investigator was granted Ethical Approval by Hibernia College for this research project on this topic. Deigh (2010) illustrates ethics as the study of what is good and bad to do along with what is right and wrong and a practical discipline. In research terms, it is what investigators can and cannot do before setting out on their research journey. The researcher had a list of forms they needed to prepare and get signed such as getting permission from the school principal, participants were reassured that any data received will be private and confidential and will follow strict GDPR guidelines, and the participants were also made aware that no judgement would be made on the researcher's part. They were given an information sheet which explained the process and the reason behind this, and they were also asked to sign a consent form. All the above forms can be found in Appendix C with each clearly labelled to explain what each one is. Both interviews were recorded with permission from the participants and were protected by a highly secured password. They were also pleased to know that it is all completely confidential, and no names would be documented in the project. Once the questionnaires were returned, the researcher stored them in a safe, secure, and locked cabinet.

3.10 Conclusion

In summation, the purpose of this chapter was to convey how the researcher gathered, analysed, and portrayed their data with rigour and in an ethical manner. It was not just a case of selecting 'at whim' what approach the researcher wanted to use, but the one that best fit this topic of interest. The teachers that completed the questionnaires and interviews volunteered to participate in the study which made it easier for the researcher to not worry about any biased views. However, not everything went as smoothly as one could have wanted and limitations apply within the study. In this context, the investigator struggled with balancing their workload and the sample size not being broad enough; study limitations that could be reviewed into potential future research. The researcher's review of the most dominant themes that emerged from the primary data over the independent study will be reviewed in the Chapter Four: Findings.

Chapter Four: Findings

4.1 Introduction

This chapter will highlight the results that were gathered from the semi-structured interviews, questionnaires, and observations. The findings that have been identified from the interviews and questionnaires (in thematic analysis) will be critically / comparatively discussed in the next chapter. The thematic results mirror the PPE teachers views and perceptions on differentiation, the need for it and how they best use it. It portrays the challenges and benefits that educators face whilst using it and contrasts what other teachers perceive / feel; and what the theorist's in the academic literature has to say on this topic. The researcher will also represent the primary data as descriptive statistically content. The results from the questionnaires will be given in the form of bar charts and pie charts and will be further discussed in the discussion chapter (Chapter 5). The questionnaires consisted of statement(s) where the participants had to respond by saying if they strongly disagreed, disagreed, agreed, or strongly agreed. Extracts from the interviews have been summarised into the finding's chapters and main themes and sub dominant themes portrayed.

4.2 Findings

Teachers know that all students are entitled to an education in an inclusive mainstream class so it is their objective to try achieving this as best they can. However, they also understand that sometimes this cannot always be achieved and sometimes withdrawal on implementation may be the only option. Educators must liaise with parents and management if they feel the student cannot keep up with the pace of their peers once they are happy; even where they have tried to differentiate as best, they can. The questions posed in the interviews and questionnaires will attempt to review the strategies and challenges in classroom implementation of differentiation, commencing with the acquired competency (in specific knowledge areas) of the educators (in Question 1).

4.2.1 Thematic Findings

The main findings that support the emerging themes are highlighted in blue from the extracts provided (below) in the interviewee answers. Participant 1 is the teacher that has 25+ years teaching experience whilst Participant 2 is the teacher who has been qualified withing the last 3 years.

1. Do you feel your qualifications have equipped you to implement differentiation in the classroom?

Participant 1

As I have graduated quite some years ago, I feel like this was not as topical an issue as it is today. The Education Act 1998 and the EPSEN Act 2004 have brought in some major changes in this sphere. As a result, my original degree would not have equipped me for differentiating material in the classroom. However, the school have had some CPD courses on this topic which has helped me. It is still a difficult area for me at times ...my ability with ICT is limited I feel whilst the school tried to help, most of the learning in this area was left up to us to get up to speed with.

Participant 2

In short terms, no I do not think so.... We often had discussions on this topic and gave each other some different useful strategies that I try use and develop each day. It is an area I still do not feel fully confident in and would welcome any training on this.

2. Is differentiation needed by you in every class?

Participant 1

There is a need for differentiation in all my classes as I have students of different levels of ability at all year groups. I teach junior cycle Geography and none of the classes are the same in the way they learn. One of my classes work well in group work ... other classes cannot work together ... disruption.

Participant 2

I teach maths to all year groups and differentiation is certainly needed in all classes. It is more common in the ordinary level classes but is still needed at times during higher level lessons.

3. What is the need for differentiation in the class?

Participant 1

In all my junior cycle geography classes, I have an SNA present in my classes with different students who have ASD. The SNA has three students in one class and two students in the other. Some of these students are very bright students and top of the class but they also need set structure to keep them on task. Other students in my classes struggle to take down notes at the same pace as his peers so differentiation is

needed here. We also have a *high number of multinational students* in our school, so some *words need simplified* for these students.

Participant 2

Maths is a subject that students tend to give up in a lot easier than other subjects. The aim ... make things as easy as possible. Some students ... an SNA with them and struggle to keep up with the pace of their fellow classmates. Others lack interest so relating to topical issues are helpful. More students are foreign nationals so need some words explained in detail as well as some students having weak comprehension skills.

4. What are the main ways you differentiate a lesson?

Participant 1

Differentiated instruction – Being able to explain something in different ways is something I make sure I can do before beginning a new topic. Being able to relate to things students are interested in or real-life examples make it easy for them to understand and something I am ever learning about. Simplifying more difficult words is also an example of ways I use differentiated instruction.

Differentiated worksheets/ homework/ tests – Some of my students struggle to keep up with the junior cycle curriculum so differentiated homework/ worksheets is something I must do to every class. This means I must be more prepared now than previous years as it is a more topical concern in modern days. Some students are completing an L2LP so differentiated work is needed for them.

Printed out Notes – I must also print notes out for some of my students who struggle to keep up to pace with the class. This would have been discussed with the SNA and Co Ordinator of our ASD unit at the start of the year as they felt he would not be able to concentrate whilst taking down notes and he would get stressed easier if he missed any part of the notes.

Groupwork – During group work activities I aim to pair some of my stronger students with some of my weaker students as a way of trying to get them learn from their friends. Although this can be difficult with some of my ASD students as social interaction is an issue for them, they are gradually building up the confidence and friendships with those around them.

Mind maps – At the end of each chapter, we do a mind map collectively to summarise the key points of the chapter. This is very useful for the weaker student who struggles to maintain new learnings as they now have a summary to try learning rather than a collection of different notes.

Participant 2

Differentiated instruction – Being able to explain things in several different ways in maths is a skill. A lot of people may not think this is differentiating but a lot of thought goes into this before each lesson.

ICT – I try incorporating ICT into most of my lessons as students like working with it and feel it is easier to explain something especially when correcting homework. Playing kahoot games are also a good way of getting student feedback without completing a test.

Different Colour Markers – I feel using different colour markers helps students see where figures come from such as substituting numbers into formulas. It makes it easier to match what numbers went where and why this happened.

Groupwork – I feel groupwork is a brilliant tool to use in a differentiated classroom and I would do this by grouping weaker students with stronger ones. The idea of this is for the weaker student to learn from the stronger one.

Differentiated homework/ worksheets/ test – This is important on both sides of the scale. Having work that weaker students can complete but also having extra questions for the stronger students to complete so they are not sitting there idle.

5. How important is it to know your students before implementing differentiation?

Participant 1

I feel it is easier to differentiate instruction to some of the students that I am more familiar with than others. In saying this, I feel it is very important to try get to know your students and would recommend to any teacher starting out to try do this from the offset. I am not interested in sport so cannot relate to students in this regard, but I do run the school library so have a stronger relationship with those interested in reading.

Participant 2

This is the main thing that I have been advised from everyone when getting qualified. Tutors, fellow teachers, principals always say get to know your students and build a relationship with them. This will make it easier for them to ask questions if they are stuck. It is also important to know how to differentiate for them with what their interests are. I like to use GAA and sports when explaining things, but this would not be useful if there were no sporty students in the class.

6. How do you get to know your students?

Participant 1

I get involved with extracurricular activities and the library is my way of achieving this. However, as already stated, not all students are interested in the library, so I do ice breaker activities with any new classes I get at the start of each year. I try

document a profile of each student such as what they are interested in to help me get to know them.

Participant 2

I have a keen interest in sport and help train several school teams. I feel this is the best way to build relationships with students and get to know them as they now see you as someone other than a teacher. I feel they respect you more as well which leads to less discipline issues in the classroom so gives more time for differentiated instruction etc.

7. Have you come across any challenges whilst differentiating? What are these?

Participant 1

The main challenge I face is the worry of spending too much time completing chapters and losing time. Having to work slower at times can eat into a lot of the teaching time which could leave us to fall behind. Another difficulty is trying to be discrete when distributing the notes/ worksheets/ tests to the students that need it. The worksheets and tests can be easy but giving the students notes was a challenge before I agreed with the SNA that I would give them to her before the class begins.

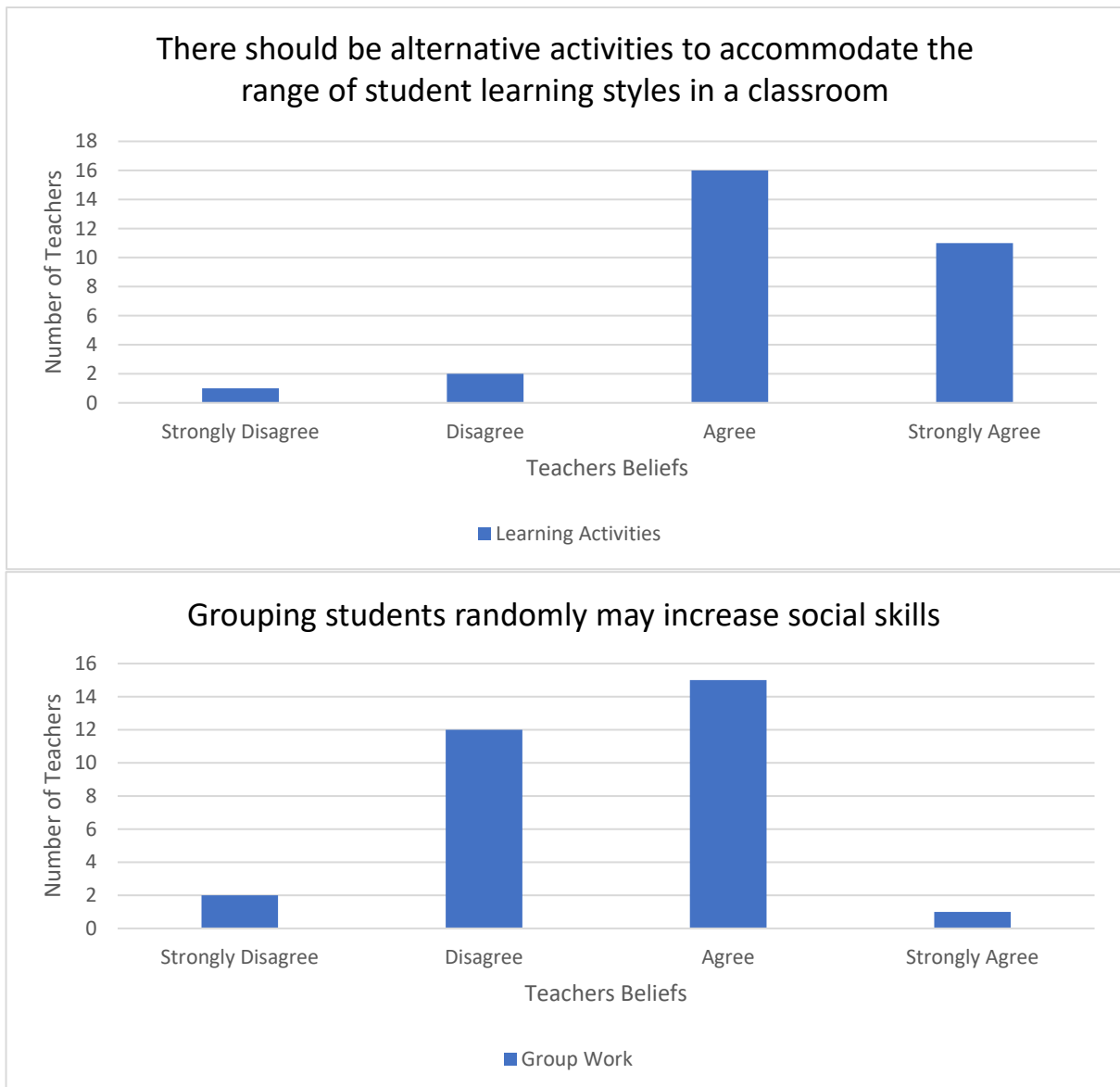
Participant 2

Major challenge I faced when differentiating worksheets and tests was trying to gauge what would be too easy or too hard for my student. I also find it hard at times to keep some students on task during group work activities but have altered my approach to this by making students discuss together and then discuss with their pair behind them and having one spokesperson from that group of four then.

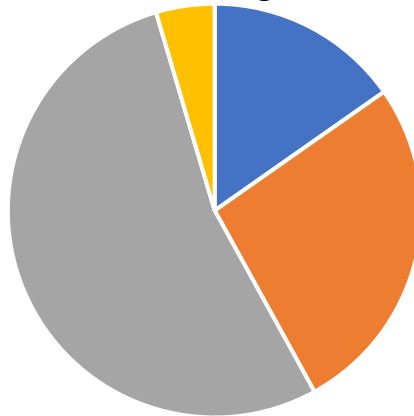
4.2.2 Descriptive Statistical Representation

The findings from the questionnaires (N =30) have been summarised in the descriptive statistical figures below (see Figure 4.0-4.4, below).

Fig 4.0 (top) and 4.1(bottom).

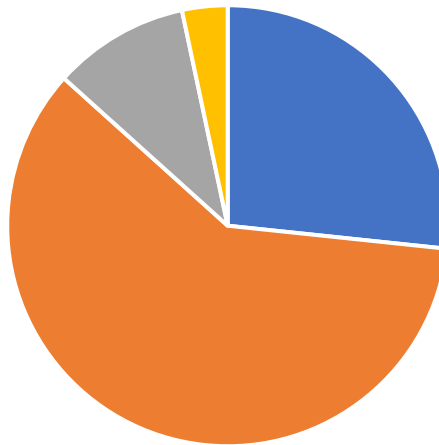


Lesson introductions should connect with students' prior knowledge



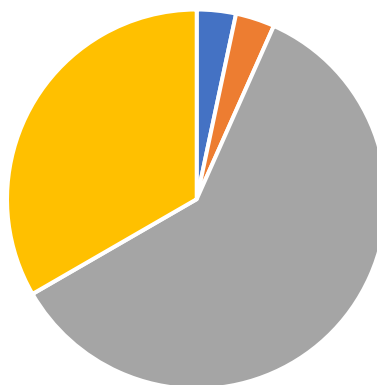
■ Strongly Disagree ■ Disagree ■ Agree ■ Strongly Agree

Students should complete their work at the same time



■ Strongly Disagree ■ Disagree ■ Agree ■ Strongly Agree

It is imperative that teachers provide resources that vary in difficulty



■ Strongly Disagree ■ Disagree ■ Agree ■ Strongly Agree

Fig. 4.2 (top), 4.3 (middle), and 4.4 (bottom).

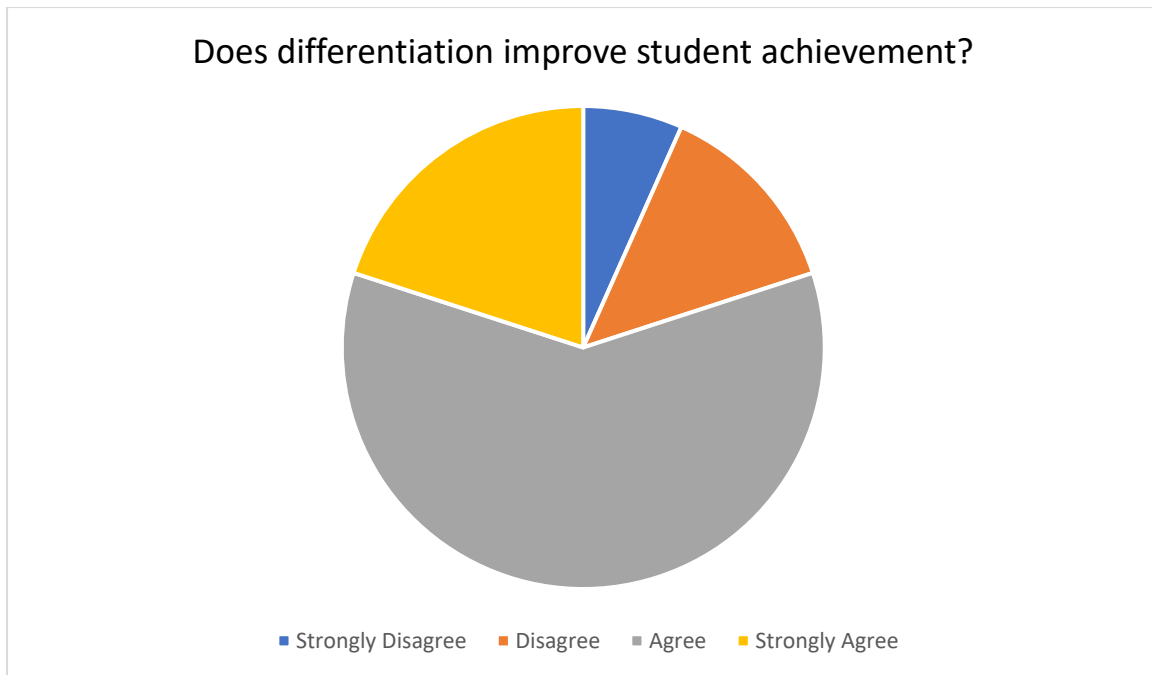


Fig 4.5

4.3 Conclusion

The idea of this chapter was to present the primary data that was obtained from the interviews and questionnaires. The interviewees had different levels of experience, and this was designed within the inclusivity criteria of the survey. The questionnaires were distributed to teachers (N=30) without pre-design on whether they had specific experience in differentiation. The data highlighted some areas of weakness and improvement that is needed. The investigator used thematic and statistical analysis to highlight themes and sub themes from their findings. These themes will be critically discussed in the next chapter, Chapter 5 - Discussion.

Chapter Five: Discussion

5.1 Introduction

The aim of this chapter is to discuss the findings in a thematic format from the previous chapter and draw conclusions from the information gathered. The two research questions that emerged from the literature review will be reviewed in relation to the results from the interviews and questionnaires. A critical and comparative review of the themes that emerged from the data collection process will also be portrayed and will be compared with the wider literature review to determine if the primary data found fits the consensus of the wider academic viewpoint. The two research questions that derived from the literature review were:

1. Are teachers resourced to implement differentiation in the classroom?
2. What are the main ways a teacher differentiates in their class?

Both questions will be critically reviewed by comparing findings with previous literature outlined in the literature review. The researcher will also give their opinion on themes that emerged from the findings whether they agree or disagree with them.

5.2 Lack of Competency and Training Opportunities

The first research question that emerged was: Are teachers equipped enough to implement differentiation in the classroom? From the researchers' findings, both interviewees are still not totally comfortable in this area but have tried many strategies to implement differentiation as best they can. This coincides with Idol's (2006) theory that teachers have reported their teacher training has under prepared them in this sphere. Furthermore, this also backs up the researcher's point of view and their overall reason for researching this topic. The investigator stated that this was an area that his peers were not comfortable in before embarking on SEPP phases or was also something they wanted to improve upon after a placement block had come to a finish. By the end of their last placement phase, this theme was not as big of an issue when students were reflecting on challenges. This shows that the teacher training gave the students confidence around this topic but there still a small cohort who still struggled.

A recommendation from the researcher to improve teachers' confidence in this area could be having a designated differentiation society whereby teachers meet and discuss what methods and strategies work best. Schools have many different societies that teachers are involved in

so a society like this could be greatly beneficial. Another recommendation came from one of the interviewees as they advised more CPD courses be administered to the schools to further develop their studies. Teachers, like others, realise that every day is a school day and from the interviewees, they would welcome this training.

5.3 Necessity of Classroom Differentiation Strategies

The second research question was: What are the main ways a teacher differentiates in their class? Before this is directly answered, our findings discovered what the need for differentiation was. Both interviewees agreed with both Tomlinson et al. (2003) and Westwood (2015) in the context that the school is increasingly becoming more diverse and that classes now have much higher numbers of mixed ability. Thus, leading to the need for differentiation. The researcher also agrees with the above having completed three different placement blocks and securing some resource hours in between placement. The main reasons that were highlighted by the interviewees for the need of differentiation was the differing levels of ability; as well as the required support for multinational students and students presenting with ASD ; who have an SNA with them and struggle to take notes down and the same pace as their peers. The interviewees disagreed with Pozas, Letzel, and Schneider (2020) who claimed that some teachers only use differentiation occasionally; respondents reported that there was an absolute need for it in all of their classes. The researcher also personally disagrees with this statement from Pozas, Letzel, and Schneider, (2020); as from previous experience, classroom differentiation strategies are essential during the SEPP phases. Participant 2 agrees with Amabile (2018) that the need for differentiation at times is to maintain student interest and to try keep students engaged in a subject that they may fall out of love with.

5.4 Successful Implementation and Challenges in Application

The interviewees (N=2) gave different activities such as ICT, groupwork and mind maps as appropriate strategies to meet different learning styles; 90% of questionnaire respondents (N=30) also agreed with this classroom strategy of active learning (as can be seen from figure 4.0). This strategy also agrees with Ting et al. (2022) who believes that active learning has a positive impact in particular, group work (as illustrated by interviewees are examples of effective application). However, one stark discovery from the questionnaires can be seen in figure 4.1 with teachers disagreed with the statement that grouping students randomly may

increase social skills. One can only ponder that teachers would group or differentiate their students accordingly to aptitude and refrain from doing it randomly.

Unfortunately, many challenges are posed that teachers must overcome whilst trying to differentiate a lesson. Participant 2 (of the interview group) agreed with Bransford, Brown, and Cocking's (1999) theory that it is hard to see where the students' abilities lie, and it is challenging to differentiate as they struggle to know what will be too easy and what will be too hard for the students. The researcher also agrees with this opinion from professional work placement experience, particularly when working in the resource department in a school. At times, it was perceived by the researcher that the work allocated to the student was too easy; and more complex tasks were introduced the next day (and the student struggled). Trying to find that median where the student is completing tasks with little, or no help is the primary goal; figuring out the learner's level of learning aptitude as early as possible is paramount.

The interviewees (N=2) believe it is paramount to know your students before attempting to differentiate a lesson. The interviewees feel that the best way to get to know their students is by getting involved in extra-curricular activities and building relationships with them outside the classroom. By getting to know their students, they feel it is easier to differentiate instruction. An example given by one of the interviewees was that their interest was sport and would try relating to their students in that regard. However, this is not possible with someone who does not have any interest in sport so knowing this beforehand would make the teacher aim to differentiate in another way. Following on from this, the interviewees (N=2) listed their most successful ways to differentiate lessons as the following. Firstly, both agreed that it was important to differentiate worksheets, notes, or tests. The researcher also agrees with this strategy considering their experience. This theme was also apparent from questionnaire answers as can be seen from figure 4.4. A staggering 93% of participants (N=30) agreed that it is imperative to have resources that vary in difficulty for pupils in their class. This also reinforces the point that can be seen in figure 4.3 where respondents were asked to provide an opinion on whether students should be required to complete their work at the same time; Teachers in the survey (N=30) disagreed with this statement as 87% claimed this was not true. This can work from both sides of the argument whereby teachers should have extra work for those who complete tasks quicker than others, to provide weaker students (or the slower writers) time to complete the task.

The overall way to monitor if differentiation works is to monitor student achievement. As can be seen from figure 4.5, contributors to the questionnaires agree with Valiande and Koutselini (2009), Reis et al. (2011), and Baumgartner (2003) that differentiation does in fact lead to improved student academic performance. As can be seen from figure 4.5, 80% of the teachers who completed a questionnaire (N=30) believe that differentiation does improve student achievement. The researcher agrees with this statement from previous experience whilst team teaching in a class and seeing the weaker students benefit from differentiation strategies such as ICT and differentiated homework.

Finally, the statement that resulted in a closest discrepancy amongst staff was that lesson introductions should connect with students' prior knowledge. As can be seen from figure 4.3, a total of 58% of teachers agreed with this statement whilst 42% disagreed (N=30). This is the closest tie in the survey that any statement has come to each other. Both strategies of 'introducing a topic' and 'activating prior knowledge' are types of differentiation, but some participants believe these strategies are co-dependent. On reflection, the researcher can see where both sides of the argument are coming from. Any new topic should be introduced by activating prior knowledge but it must also be realised that some topics may be completely new and this type of lesson (with new material) cannot be introduced by activating prior knowledge.

5.5 Conclusion

To conclude, it is clear from these findings and the literature that differentiation is a complex concept and one that you cannot just be 'learn overnight'. Before attempting to engage in differentiation strategies, teachers must first get to know their students. This is crucial to understand the best way to differentiate; if it is just differentiated instruction that a learner requires or if it is differentiated content support such as worksheets, notes, and tests. Furthermore, differentiation strategies such as ICT, groupwork, mind maps (and even something as simple as using different coloured markers) can really help learners in the classroom. It is clear from both the wider literature review and this study that differentiation does work if implemented effectively but there are teachers that are still not fully confident on classroom implementation. In the survey, it was apparent that teachers welcome any professional development, and that a lack of competency in these specific areas is certainly an area of concern that they would like to improve on. Other ways that teachers could gain some confidence / further training could be by creating a 'differentiation team' or 'society' (whether in-person or via remote online platform access groups) to develop /discuss 'working

document' of strategies that effectively work in the classroom. This working document could be shared on google docs or Microsoft teams depending on what online platform each school uses.

Chapter Six: Conclusion

6.1 Introduction

The aim of this chapter is to interweave the main thematic findings gathered from the development of this research project considering the results that was discovered in the discussion chapter (Chapter Five). The aims of this research project were achieved through gathering evidence from the wider (most recent) published literature (within the last decade) and comparing it with findings (primary data) from the interviews and questionnaires conducted during PPE school placement. The structure of this chapter will have an introduction, summary of core findings, limitations, recommendations for future pedagogical practice and research, and finally, the conclusion.

6.2 Summary of Core Findings

The main findings from this thesis are that differentiation certainly works if done correctly. The researcher agrees with a report by McMahon (2019) that states that differentiation is a difficult task with 83% of teachers in the U.S. stating it as being ‘somewhat’ or ‘very’ difficult to implement. Findings from interviews and questionnaires have shown that it is important for teachers to get to know their students on a personal level before trying to differentiate. They believe the best way to do this is by getting involved in extra-curricular activities to build relationships with students, so they see you as someone other than a teacher. This will then help with knowing how to differentiate the lesson and students may feel more comfortable asking questions. Some of the main differentiation strategies listed as being useful by the interviewees were differentiating instruction and worksheets, active learning strategies such as using ICT and groupwork, and mind maps. It was also agreed by teachers who responded to the questionnaires that if all these things are considered, then differentiation can work and improve academic performance as stated by Reis et al. (2011). The researcher agrees with these techniques and has used them during his placement block-period in PPE and will continue to use and develop these techniques to further the effect of student achievement.

6.3 Limitations

Limitations, as described by Ross and Zaidi (2019) are any weaknesses in the research that may affect the outcome. If the researcher was to review this study for replication, some adjustments would be made to the study design; for example – the student would provide areas in the questionnaires for teachers to elaborate (further) on their responses to allow for emerging and potential new themes to arise from the survey. An example of this would be when respondents were split on their verdict around the topic of groupwork (as a viable strategy for classroom differentiation); an opportunity for further elaboration would have allowed the researcher to gain a greater insight as to their reason behind this conflict. Furthermore, the researcher would aim to receive responses from teachers across different public schools in the Republic of Ireland to obtain views that may not just be accustomed to an all-boys school. As Simon and Goes (2013) illustrate, no matter how much preparation or time goes in to making the perfect research project design, limitations will still be part of it. The researcher also believes a pilot study could have been completed with a critical friend to support any review on transparency, generalisability etc.; any redesign for replication of the study for future work would incorporate that aspect.

6.4 Recommendations for Future Practice and Pedagogy

The researcher believes the best way to improve differentiation in any school is to further train the teachers on this aspect. The EPSEN Act (2004) has clear intentions and aims on PPE classroom differentiation but offers limited policy guidance and support (and area that could also warrant further policy research on reform). Educators need to be upskilled in differentiation to maintain teaching students with additional needs in the mainstream classroom. This can be done by providing more CPD courses where teacher's progress their professional skillset to improve their teaching. Moreover, a PPE school could devise a specific society/social platform who oversees gathering and sharing different differentiation strategies that work in the classroom with the opportunity to share these strategies through the school's (internal) online platform with descriptions on processes on to successfully implement. The final recommendation the researcher has for this future practice and pedagogy in relation to differentiation would be to encourage expression from the student's 'voice' and see what strategies students enjoy and feel beneficial.

6.5 Conclusion

This chapter ends an enjoyable experience for the researcher in gaining a greater insight into differentiation, why it is needed and ways to implement it. Throughout this study, the findings, themes, ethical issues, limitations, and recommendations for the future were outlined with the investigator providing the verdict on whether there was a consensus between the researcher's findings (on professional teaching colleague's perceptions) and wider literature of the research theorists (specific to the topic of interest). The researcher also believes there was a lack of recent studies at a national context in the Irish education system and concludes by saying that this should be an area that the Department of Education (DoE) should further address.

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Appendix A

Questionnaire:

Differentiated Instruction Beliefs/Practice Survey

Please circle your opinion using the following scale:

- 1 – Strongly Disagree
 - 2 – Disagree
 - 3 – Agree
 - 4 – Strongly Agree
- 1) There should be alternative activities to accommodate the range of student interest in a classroom 1 2 3 4
 - 2) It is important that lesson introductions engage the students 1 2 3 4
 - 3) It is important to group students according to learning styles 1 2 3 4
 - 4) It is not necessary to adjust assessments to match the differentiated content 1 2 3 4
 - 5) There should be clearly stated learning objectives 1 2 3 4
 - 6) Lesson introductions should communicate learning objectives 1 2 3 4
 - 7) Teachers should group students according to their interests 1 2 3 4
 - 8) Lesson introductions should be relevant to the students 1 2 3 4
 - 9) Teachers should provide resources that vary in familiarity 1 2 3 4
 - 10) There should be alternative activities to accommodate the range of student learning styles in a classroom 1 2 3 4
 - 11) Teachers should provide opportunities for students to choose their learning activities 1 2 3 4
 - 12) It is important that teachers adjust instructional methods to align with students' prior knowledge 1 2 3 4
 - 13) It is important to provide a variety of resources that address the full range of student interests 1 2 3 4
 - 14) Grouping students randomly may increase social skills 1 2 3 4
 - 15) It is necessary that teachers adjust instructional methods to align with students' skills 1 2 3 4
 - 16) Lesson introductions should connect with students' prior knowledge 1 2 3 4
 - 17) It is important to provide a variety of resources that address the full range of student learning styles 1 2 3 4
 - 18) It is imperative that teachers provide resources that vary in difficulty 1 2 3 4
 - 19) Students should complete their work at the same time 1 2 3 4
 - 20) It is not important that teachers adjust pacing to align with students' skills 1 2 3 4
 - 21) Learning activities should be adjusted to address students' prior knowledge 1 2 3 4
 - 22) Learning activities should be adjusted to address students' learning rates 1 2 3 4
 - 23) It is important to match students to assignments appropriate to their learning rate 1 2 3 4
 - 24) Teachers should adjust pacing to align with students' prior knowledge 1 2 3 4
 - 25) Teachers should use resources that vary in complexity 1 2 3 4

Interview Questions:

Interview Questions

- 1) What subjects do you currently teach?
- 2) What are your current classroom sizes?
- 3) Describe an ideal classroom.
- 4) Is differentiation needed by you in all classrooms?
- 5) What is the need for differentiation in your classrooms?
- 6) What are the main differentiation strategies you use? |
- 7) How does differentiated instruction fit into an ideal classroom?
- 8) Have you had any differentiation training in the past?
- 9) If yes, following the training, how did you go about implementing differentiated instruction in your classroom?
- 10) Do you feel like your teaching degree has helped you in implementing differentiation?
- 11) What was easiest about implementing differentiated instruction?
- 12) Have you ever had challenges implementing differentiation. If so, what are they?
- 13) Have you used any support methods during your implementation?
- 14) If yes, how have these methods helped you?
- 15) If no, why not? How would it have helped you more if support methods were available?
- 16) Has differentiated instruction changed your classroom?
- 17) If yes, how?
- 18) If no, why do you think it hasn't?
- 19) What preparation was needed in the implementation of differentiated instruction?
- 20) How do you get to know your students?
- 21) How did your students respond to your implementation of differentiated instruction?
- 22) What have you learned from your implementation that you would recommend to other teachers who might be trying to implement differentiated instruction?
- 23) If you were to give advice to another teacher wanting to implement differentiated instruction, what would you say to them?

Appendix B

Information Sheet:

Dear _____

I am writing to you in relation to a research study I will be undertaking in fulfilment of my Professional Master's in education degree. It would like to provide you with information about my study and seek your consent to conduct the research with members of your teaching staff.

As you know, differentiation is still an ongoing learning process for all teachers and the need for differentiation is becoming increasingly higher in more classrooms. Every student has the right to accessing the curriculum and differentiation aims to achieve this. My proposed research will contribute to our understanding of which differentiation methods teachers deem to be most effective in secondary classrooms.

The objectives of my research are to: identify which differentiation methods are most effective in a secondary school from teachers' perspectives, examine whether teachers feel adequately resourced and equipped to differentiate to pupils, and to explore the challenges and benefits of differentiation identified in the research. To address these areas, I propose to conduct two short (15 to 20 minute) semi structured interviews and 30 questionnaires with secondary school teachers. My project has received ethical approval from the Hibernia College Ethics Committee.

Interviews would be held at the convenience of the school and of the teachers concerned on school premises. With their written consent, interviews will be recorded for transcription and dissemination purposes. Participation in the study is voluntary. Interviewees may refuse to answer any questions or withdraw from the study at any time. No school, teacher or student will be identified specifically in any publication of the work.

I am writing to you to gain your informed consent that I may request an interview with two members of your teaching staff and that I may hold the interview in your school in February at a time convenient for the school and the teachers concerned. Confirmation of your consent can be sent either to me directly via email xxxxxxxxxxxxxxxxxxxx@gmail.com or by signature of the attached consent form posted to:

If you have any questions, please do not hesitate to contact me by phone 085xxxxxxx or at the abovementioned email address.

I look forward to hearing from you and thank you for your time.

Sincerely,

Letter to Principal:

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXX
XXXXXXXXXXXXXXXXXXXX

28-11-2022

Dear Principal,

As part of my Professional Masters in Post-Primary Education with Hibernia College, I am investigating the most effective differentiation methods in the modern classroom.

Classroom teachers are key stakeholders in identifying the most effective differentiation methods which enhances student learning and can lead to further engagement in the classroom. This letter aims to provide you with an introduction to the research project and to seek consent from you for the project to move forward to inform my future professional practice as a teacher.

With your permission, I would like to interview four classroom teachers, one from the maths department and one from the geography department. The staff will be asked to partake in semi-structured interviews to gain an insight into the aims of the project. Please find enclosed for your perusal, a copy of the information and consent forms. Only those respondents who return a signed copy of the consent form will be purposely selected to take part in the study. Any data gathering will strictly be underpinned by the school's ethical code of conduct. No students will be interviewed.

Information gathered will be held in the strictest of confidence and pseudonyms will be used to ensure anonymity. The school's name will not appear on any research findings. Interviews will be recorded, and the data will be securely held under Hibernia College Research Ethics guidelines. Participation in the study is voluntary and participants can withdraw from the research at any time. The results from this research study will be reported in my research project and may be disseminated through professional publication.

I would appreciate your cooperation in providing access to the staff at the school over the coming weeks. If you have any queries or require further information on the research study, please do not hesitate to contact me.

Researcher: XXXXXXXXXXXXXXXXXXXXXXXX Mobile: (085) XXXXXXXXXXXX Email: XXXXXXXXXXXXXXXXXX@gmail.com

This research study has received Ethics approval from Hibernia College Dublin. If you have any concerns about this study and wish to contact someone independent, you may contact:

School of Education, Hibernia College Dublin. Tel (01) 6610168

XXXXXX XXXXXXXXXXXXXXXX

Researcher's Signature: XXXXXXXXXXXX XXXXXXXXXXXX Date: 28-11-2022

Consent Form:

I, _____ have read and understood the Letter of Information provided to me by _____. I agree that to conduct research about literacy interventions used in my school, he may request an interview with four teachers and upon receipt of their consent may conduct interviews on school premises at times convenient for the teachers and the school. I understand that participation is voluntary and that there are no physical or psychological risks associated with the study. I know that all answers provided during the interview will be used for the purposes of the study only and that all responses will identify no individual or the school itself.

Signed: _____ Date: _____