



**HIBERNIA
COLLEGE**

**Differentiated Instruction Utilised in Junior
Cycle Lessons and Recommendations to Enhance
Inclusive Practices – from Teachers' Perspective**

Item Type	Dissertation
Authors	Meszasan, Andrea
Download date	2026-05-11 05:14:52
Link to Item	https://iasc.hiberniacollege.com/handle/20.500.13012/259



**HIBERNIA
COLLEGE**

**Differentiated Instruction Utilised in Junior Cycle Lessons and
Recommendations to Enhance Inclusive Practices – from Teachers’
Perspective**

Andrea Meszesan

Dissertation submitted in partial fulfilment of the award
of Professional Master of Education in Post-Primary

I agree that this dissertation may be uploaded to Hibernia College's institutional repository, IASC, subject to Hibernia College School of Education agreement, and the Hibernia College open access policy. IASC (Institutional Archive of Scholarly Content) is an open access repository designed to store, archive, and disseminate the work of Hibernia College faculty, staff and students.

June 2024

Abstract

This dissertation explores the application of differentiated instruction (DI) in Junior Cycle classrooms through a small-scale study, aiming to enhance support for students in heterogeneous learning environments. By reviewing relevant literature and conducting thematic analysis of interviews with five teachers, this research identifies current practices and challenges in implementing DI. Teachers demonstrated a commitment to adapting their strategies to diverse student needs, highlighting the necessity for more support to apply these strategies effectively. The study offers insights into potential improvements and future research directions to foster more inclusive educational practices.

Acknowledgements

I would like to extend my deepest gratitude to my supervisor for her patience and insightful feedback. This endeavour would not have been possible without the unwavering support, understanding, patience and love of my partner and my wonderful daughter. A special thank you to a dear friend, whose consistent encouragement and guidance have been invaluable in helping me navigate the challenges throughout this journey.

Table of Contents

Abstract.....	2
Acknowledgements.....	3
Table of Contents.....	4
List of Tables.....	6
List of Acronyms.....	7
Chapter 1: Introduction.....	8
1.1 Introduction.....	8
1.2 Origin of Dissertation.....	8
1.3 Background to the Project.....	8
1.4 Rationale.....	9
1.5 Dissertation Layout.....	9
1.6 Conclusion.....	10
Chapter 2: Literature Review.....	11
2.1 Introduction.....	11
2.2 Legislative and policy measures towards inclusive education.....	11
2.3 Framework for Junior Cycle.....	12
2.4 Theoretical background supporting differentiated instruction.....	13
2.5 Differentiated instruction addressing diversity in heterogeneous classrooms.....	15
2.6 Conclusion.....	18
Chapter 3: Methodology.....	20
3.1 Introduction.....	20
3.2 Research Paradigm - Interpretivist Project.....	20
3.3 Research Methodology - Qualitative methodology.....	21
3.4 Research method - Interview Process.....	22
3.5 Population and Sampling.....	22
3.6 Data analysis.....	23
3.7 Limitations.....	24
3.8 Ethical considerations.....	25
3.9 Conclusion.....	25

Chapter 4: Findings	27
4.1 Introduction.....	27
4.2 Theme One: Instructional strategies.....	27
4.3 Theme Two: Reflective practice.....	29
4.4 Theme Three: Learning environment.....	30
4.5 Theme Four: Professional development and resource sharing.....	31
4.6 Conclusion.....	33
Chapter 5: Discussion	34
5.1 Introduction.....	34
5.2 Teachers’ concept of differentiated instruction	34
5.3 Teachers’ suggestions to enhance differentiated practices.....	39
5.4 Conclusion.....	40
Chapter 6: Conclusion	41
6.1 Introduction	41
6.2 Summary of Findings.....	41
6.3 Limitations.....	42
6.4 Recommendations.....	42
(a) Future Research.....	42
(b) Future Practice.....	43
6.5 Conclusion.....	43
References	44
Appendices	52
Appendix 1: Letter to the Principal.....	52
Appendix 2: Research Information.....	53
Appendix 3: Consent Form	54
Appendix 4: Interview Schedule.....	55
Appendix 5a: Interview 2 Transcript.....	56
Appendix 5b: Interview 3 Transcript	57
Appendix 5c: Interview 5 Transcript	58
Appendix 6: Thematic Table.....	60

List of Tables

Table 1: Thematic Table.....60

List of Acronyms

BERA	British Education Research Association
CPD	Continuous Professional Development
DES	Department of Education and Skills
DEIS	Delivering Equality of Opportunity in Schools
DE	Department of Education
DI	Differentiated Instruction
GDPR	General Data Protection Regulation
JC	Junior Cycle
JCSP	Junior Certificate School Programme
LAOS	Looking at Our Schools
MI	Multiple Intelligences
SEN	Special Education Needs
SNA	Special Needs Assistant
NCCA	National Council for Curriculum and Assessment
SSE	School Self-Evaluation
ZPD	Zone of Proximal Development

Chapter 1: Introduction

1.1 Introduction

This dissertation explores teachers' concept of differentiated instruction (DI) to enhance inclusion in their Junior Cycle (JC) classrooms. The study also aims to highlight support strategies advised by teachers to support them in their differentiated practices to enable pupils to achieve their best potential. This chapter provides an overview of the subsequent chapters in the dissertation.

1.2 Origin of dissertation

This dissertation stems from the observed challenges and common misconceptions surrounding DI within diverse classroom settings. Rooted in eight years of experience as a special needs assistant (SNA) in post-primary education, the researcher has observed how teachers adapt, or fail to adapt, their instructional strategies to meet varied student needs. Additionally, through teaching JC Science and Agricultural Science during school placements, the researcher gained further insight into the challenges of effectively implementing DI. These firsthand experiences have equipped the researcher to explore the application of DI strategies in JC subjects at an urban post-primary school participating in the Delivering Equality of Opportunity in Schools (DEIS) programme, an initiative by the Department of Education and Skills (DES, 2017) aimed at reducing educational disadvantage for young people aged four to eighteen. This research aims to bridge theoretical concepts with practical application, informed by a rich background of direct involvement in educational settings.

1.3 Background to the Project

Inclusive education, a multifaceted approach that has been central to many statutory interventions in Ireland since the 1994 Salamanca Statement, is grounded in legislation such as the Education Act 1998, Education (Welfare) Act 2000, Education for Persons with Special Educational Needs (EPSEN) Act 2004, Equal Status Act, as amended. The Framework for Junior

Cycle stresses that ‘the educational experience is inclusive of all students and contributes to equality of opportunity, participation and outcome for all’ (DES, 2015, p.11). Educational approaches that aim to accommodate diverse student needs and abilities require teachers to be adaptable and proactively modify curricula, teaching strategies, resources, tasks, and assessment requirements to effectively differentiate instruction in the classroom (Tomlinson et al., 2003). Heacox (2002) defines differentiation as the adaptation of pace, level, or type of instruction to suit individual learners' needs, styles, or interests. Even though the concept of DI is well-known among educators, studies have shown mixed evidence on educators' use and understanding of DI (Tomlinson et al., 2003; Schleicher, 2016; Bondie, Dahnke, Zusho, 2019). Addressing misconceptions and inconsistencies, this small-scale research seeks to identify teachers’ concept of DI by exploring their differentiation approaches utilised in mixed-ability JC classrooms.

1.4 Rationale

As student demographic diversity grows, it becomes increasingly essential to adapt educational practices to be inclusive and equitable, ensuring every student can thrive academically and holistically. Addressing these challenges and identifying effective strategies are pivotal for enhancing educational outcomes and fostering social justice within the education system. For an aspiring post-primary teacher, conducting research in this area not only advances professional development but also equips them to effectively contribute to the progression of inclusive education. This research specifically examines how principles of inclusion influence teachers' interpretations and practices of DI. It seeks to identify support strategies for DI recommended by teachers themselves. These aims are intended to provide valuable insights that contribute to the discourse on effective pedagogical approaches and the advancement of inclusive education.

1.5 Dissertation Layout

The introduction chapter highlights the research topic's inspiration, provides an outline of the study in the context of relevant literature while presenting the rationale for the research and illustrating its aims and objectives. The literature review contextualises the study considering national and international policies and other relevant literature regarding inclusive education,

theoretical framework addressing diversity and differentiation learning and teaching strategies. The methodology chapter identifies and justifies the quantitative method used for the research, and outlines the thematic analysis used. It discusses the limitations and ethical considerations of the project. The findings chapter presents and critically analyses the themes emerged through thematic analysis. The discussion chapter presents these findings in the context of existing literature and critically analyses those. Finally, chapter six copper fastens the study with conclusions reached from the discussion and synthesis of main findings. It highlights the extent to which the research achieved its proposed aims, while also addressing the limitations and recommendations for future practice and further research.

1.6 Conclusion

The chapter highlighted the origin of the idea for this dissertation, contextualised the project in light of legal interventions and academic literature. The research's rationale and aims are outlined, along with the dissertation's layout, identifying and briefly reviewing the chapters. Literature underpinning inclusion and DI will be discussed in the following chapter.

Chapter 2: Literature Review

2.1 Introduction

This chapter explores the conceptual and practical dimensions of DI, commencing with legislative frameworks underpinning inclusive education in diverse classroom settings. It discusses and critiques the theoretical paradigms of Vygotsky, Gardner and Dewey that shape the understanding and implementation of DI practices. The review connects these theoretical insights to practical applications, particularly focusing on how Junior Cycle (JC) programs are tailored to meet varied student needs. Central to this discussion is Carol Ann Tomlinson's framework of DI, which offers strategies for addressing individual learning differences effectively. The chapter identifies and analyses the challenges educators face in implementing DI, setting the stage for a detailed examination of how these strategies are applied in real-world settings. The findings aim to identify actionable improvements that can support teachers in creating more inclusive, engaging, and supportive educational environments. The conclusion of this chapter clarifies the core content and outlines the research questions that have emerged, guiding the subsequent study.

2.2 Legislative and policy measures towards inclusive education

The turn of the twentieth century marked a critical juncture for inclusive education in Ireland (Andrews and Lupart, 2000; Florian, 2019; Nilholm 2021). The first significant milestone towards inclusive education was reached with the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994). The Statement advocated for a rights-based and non-discriminatory approach, emphasising every child to receive education in mainstream schools, and called for the implementation of inclusive policies and practices (ibid.). It recognised the diverse characteristics, interests, abilities, and educational needs of all learners and encouraged the implementation of school programmes accordingly. This paved the way for inclusive reforms in many countries, leading to the acceptance and implementation of greater inclusion of students with disabilities and special educational needs (SEN) in mainstream educational settings. One of the most significant outcomes of the Salamanca Conference was the

promotion of inclusion as a fundamental starting point for enhancing inclusive education for everyone (Florian, 2019).

The key legislations in Ireland, including the Education Act 1998 and the Education for Persons with Special Educational Needs (EPSEN) Act 2004 marked a shift towards inclusive education in Ireland, by addressing the needs of individuals in mainstream education, while also emphasising the right of all individuals, regardless of their abilities, to access education in mainstream settings to the greatest extent possible (Education Act, 1998; EPSEN Act, 2004). Subsequently, in 2018, the ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), Article 24 was the first legally binding provision mandating the Irish Government to work towards establishing inclusive education where students of all abilities, with and without disabilities, learn together in the same classroom environment and have their individual needs met (Department of Children, Equality, Disability, Integration and Youth, 2021).

Haug (2017) believes that inclusion encompasses students who might be susceptible to segregation, irrespective of their gender, culture, language, needs, or social background. Jordan (2018) also posits that overarching conceptual frameworks that go beyond the scope of SEN perceive inclusion as necessitating structural adaptations to address and meet the holistic needs of all students. Despite this broader view, many empirical studies in the realm of inclusive education focus on the advantages experienced by students with SEN, often overlooking the wider dimensions of diversity in the classroom (Ainscow, 1999; Schwab, Resch and Alnahdi, 2021). This research study will consider the wider concept of inclusion which will not only focus on students with SEN but also embraces heterogeneity at the whole class level. It will examine teachers' approaches employed to address such diversity in their Junior Cycle (JC) lessons.

2.3 Framework for Junior Cycle

Policy changes have led to adjustments in educational programmes, aimed at enhancing learning experiences and fostering a more inclusive environment for all pupils. The Framework for Junior Cycle supports this through its twenty-four statements of learning and eight guiding principles,

offering schools the flexibility to tailor curricula to meet diverse student needs (DES, 2015). The JC Framework integrated eight key skills within subject specifications to address unique learner abilities and includes provisions for students with general learning difficulties through alternative qualification levels, such as Level 2 and Level 1 Learning Programmes (ibid.). These educational interventions prioritise students at the core of the educational experience and emphasises the importance of student voice in evaluating educational practices, as outlined in the School-Self Evaluation (SSE) Guidelines (DES, 2015; DE, 2022a). Despite these enhancements, a survey by ASTI (2022) indicates that many teachers find the subject specifications and the modified terminal examinations insufficient for preparing students for Senior Cycle. There are also concerns regarding the common level examination's ability to adequately challenge all students. In response, new reforms in the Senior Cycle aim to better prepare students for 21st-century challenges by placing greater emphasis on project-based assessments and broadening learning outcomes in curricular specifications, aiming to deepen learning and better prepare students for 21st-century challenges.

The Department of Education and Skills (DES) and the National Council for Curriculum and Assessment (NCCA) launched the Junior Certificate School Programme (JCSP) in 1996, aiming to enhance student attainment by offering schools a flexible and differentiated approach. As a support framework to the JC, it offers a partially differentiated curriculum and assessment approach, considering students strengths and abilities (NCCA, 2010). Their progress and achievement are demonstrated through their portfolio, emphasising personal commitment to learning and the importance of the skills they developed, with a particular focus on literacy and numeracy. A significant majority of post-primary schools participating in the JCSP are designated Delivering Equality of Opportunity in Schools (DEIS) (Dáil Éireann, 2023). This reflects that the initiative plays a crucial role in supporting highly disadvantaged students, providing them with tailored educational opportunities designed to enhance their academic achievement and overall school experience.

2.4 Theoretical background supporting differentiated instruction

With the increasing diversity in student population, teachers are challenged to assist all students

achieve their full potential, necessitating a move away from one-size-fits-all approaches to more student-centred pedagogies. To succeed, it is crucial for educators to understand the theoretical paradigms underlying knowledge acquisition, enabling them to recognise the importance of utilising differentiation strategies. Familiarity with these theories also aids teachers in engaging in reflective practices that enhance their teaching methods and disciplines. Theoretical contributions from Lev Vygotsky, Howard Gardner, and John Dewey played a pervasive role in providing the foundational concepts for this research.

Lev Vygotsky's social constructivist theory posits that cognitive development is significantly shaped within social and cultural contexts, asserting that higher cognitive functions first arise between people during social interactions before being internalised by the individual. (Vygotsky, 1978). This perspective has become particularly relevant in diverse educational environments that emphasise inclusive education. Vygotsky's concept of the zone of proximal development (ZPD) which identifies learning as most effective when students tackle tasks slightly beyond their independent abilities, necessitating instructional scaffolding that considers prior knowledge (Vygotsky, 1978; Vygotsky, 1986). In diverse classrooms, DI and scaffolding by teachers and peers are essential for advancing students' learning within their ZPD, fostering active engagement in problem-solving (Stone, 1998). However, Vygotsky's concept of the ZPD has been criticised for not specifying one's exact learning needs or motivational influences and failing to explain how cognitive development occurs (Chaiklin, 2003).

Howard Gardner's theory of multiple intelligences (MI) builds on Vygotsky's social constructivist ideas by proposing that intelligence encompasses a spectrum of distinct cognitive capabilities, moving beyond the traditional IQ assessment model (Gardner, 1999; Beliavsky, 2006). Gardner identifies nine types of intelligences, namely linguistic, logical-mathematical, musical, spatial-visual, intra-, and interpersonal, bodily-kinaesthetic naturalist, and existentialist (Gardner, 2006). Such a view of diverse cognitive abilities recognises individual differences in strengths and learning styles (*ibid.*). This approach challenges the effectiveness of a 'one-size-fits-all' educational strategy, suggesting that such methods only cater to limited aspects of student potential (Gardner, 1999). According to Waterhouse (2006), Gardner's MI theory has been criticised for potentially conflating types of intelligences with talents and personality traits,

however Chen (2004) argues that its foundation in empirical research across disciplines underscores its educational significance. The theory promotes differentiated approaches that acknowledge and leverage diverse student strengths, enabling educators to tailor their teaching strategies effectively.

Similarly to Vygotsky, John Dewey (1997) emphasised the significant role of the social context in education, critiquing traditional methods that rely heavily on textbooks and teacher-led instruction. According to Dewey (*ibid.*), such methods position students as passive learners, who merely receive information rather than actively engaging with it, which neglects their interests, abilities, and prior knowledge, stifling their educational development. He advocated for an educational system where aims and objectives are adapted to reflect individual student characteristics. Dewey's principles support differentiated pedagogical approaches that align learning and teaching with each student's unique needs and cultural backgrounds.

The theories discussed underscore the inadequacy of uniform, 'teaching to the middle' strategies in addressing the diverse needs of students. Singular instructional methods fail to accommodate the varied strengths and needs inherent in every classroom. It is essential for educators to understand each student's unique attributes, abilities, needs, interests, strengths and learning styles to effectively plan and implement DI to maximise students' potential (MacGillivray and Rueda, 2001; Tomlinson et al., 2003; Munro, 2012). These theories reinforce Tomlinson's DI philosophy, highlighting its critical role in the educational process.

2.5 Differentiated instruction (DI) to address diversity in heterogeneous classrooms

In contemporary classrooms, educators engage with a diverse student population stemming from a broad range of backgrounds, encompassing factors such as race, culture, socioeconomic status, gender, prior experiences, personal interests, learning preferences, needs and abilities, personalities, and levels of motivation (Tomlinson et al., 2003; Levy, 2008; Pozas, Letzel and Schneider, 2019). Various literature concluded that DI is an empirically validated approach associated with effective inclusive practices, accommodating the array of learner differences (Tomlinson et al. 2003; Coffey, 2011; Petty, 2014; Tomlinson, 2014). Bondie, Dahnke and

Zusho's (2019) literature analysis highlighted that one of the most widely recognised definitions of DI is offered by Carol Ann Tomlinson. Differentiation serves as a framework that provides avenues for every pupil to reach their best potential, with teachers proactively adapting instruction to diverse student needs (Tomlinson, 2001; Munro, 2012). Tomlinson's (2014) pedagogical philosophy of differentiation emphasises the importance of acknowledging and accommodating MIs to foster individual interests and cater to student's unique attributes. To differentiate instruction effectively, professionals must attend to student readiness, interests, and learning profiles (Tomlinson, 2001).

Building on Vygotsky's theory, identifying students' ZPD allows teachers to accurately assess their readiness and tailor developmentally appropriate instruction and scaffolding (Whipple, 2012). Integrating students' interests, shaped by their prior experiences, strengths, needs, and cultural backgrounds, into the curriculum can significantly boost their motivation for learning (Brod, Werkle-Bergner, and Shing, 2013). Tomlinson and Imbeau (2010) emphasise that DI should consider students' learning profiles, including their preferred learning styles and intelligences, outlined by Gardner's (2006) theory of MI. Integrating MI with Bloom's Taxonomy facilitates educational activities that address varied cognitive levels and learning needs, optimising engagement, and learning outcomes in diverse classroom settings (Heacox, 2002; Grey & Waggoner, 2002). Tomlinson and Imbeau (2010) advocate for the development of DI strategies that respect and incorporate cultural diversity within the classroom.

Teachers have a crucial role in enabling curriculum access to all. Considering student attributes, teachers must modify content utilising varied instructional strategies, allowing students to express their understanding through preferred products (Tomlinson, 2005; Tomlinson, 2014). Tomlinson (2005) points out that continuous formative and summative assessments inform DI through identifying students' needs and tracking their progress. These flexible adjustments are key to providing high-quality differentiation practices (Tomlinson, 2014; Prast et al., 2015). Tomlinson (2014) underscores the necessity of a safe, respectful, and stimulating learning environment for effectively implementing DI. To achieve inclusivity, educators are encouraged to adopt pedagogies that create such an atmosphere. Cooperative learning plays a critical role in this context, placing the learner at the centre of their own learning (Johnson and Johnson, 2017).

Peer engagement enhances students' social and personal skills and fosters their self-efficacy and independence (Johnson and Johnson, 1994; Thanh, 2013; Goodman, 2016). This approach not only encourages collaboration and mutual respect among students but also creates a nurturing space where students can confidently share ideas and reduce anxiety, thereby supporting mental wellbeing. This focus on student wellbeing aligns with broader educational initiatives, such as the Wellbeing Policy Statement and Framework for Practice and the Junior Cycle Wellbeing Guidelines, emphasise the importance of supportive learning environments in schools, including a presence of a 'One Good Adult' in it (DE, 2018; Jigsaw, 2021; NCCA, 2021).

In the era of digital technology, schools increasingly embrace technology into their lessons. The Digital Strategy for Schools to 2027 focuses on promoting equity and inclusion through bridging learning gaps with digital technology through DI (DE, 2022c). The integration of technology in the lessons helps overcome learning barriers through its proactive and interactive features. It can facilitate modification of content, process, and product, reinforcing Tomlinson's (2014) framework of DI while fostering key skills outlined in the JC Framework (NCCA, 2015). The successful integration of technology in the lessons requires careful planning of instructional approaches (Hattie, 2009). Regular reflection on how technology is integrated into teaching is crucial for adjusting its use to align with students' needs, readiness, and feedback (Schön, 1990). This reflective practice maintains the relevance and effectiveness of technology in education and encourages all students to actively participate in their learning.

Despite widespread recognition of DI and its benefits on student motivation and outcomes, studies have highlighted discrepancies in teachers' utilisation of DI (Westwood, 2013; Pozas et al., 2021). While teachers acknowledge the value and necessity of DI, actual implementation varies significantly, often limited, or inconsistent (Pozas et al., 2019; van Geel et al, 2019). This gap between theory and practice is attributed to teachers' misconceptions about DI, stemming from their beliefs, the variety of DI strategies available, and a lack of deep understanding (Tomlinson et al., 2003; Idol, 2006; Whipple, 2012; Dixon et al., 2014; Smale-Jacobse et al., 2019). Putra (2023) points out that teachers frequently overlook data on student readiness, a crucial aspect of effective DI implementation. Barriers such as insufficient initial teacher and in-service training, time constraints, lack of available resources and support from management were

also reported as hindering factors of effective differentiation (Drudy and Kinsella, 2009; Konstantinu-Katzi et al., 2013; Dixon et al., 2014). Gamoran (1992) found that teachers in advanced secondary schools practice differentiation less frequently, due to the belief that it is unnecessary for high-ability students. This perspective fosters a reliance on whole-class instruction, overlooking the diverse needs and unique characteristics of individual students, thus failing to cater adequately to their educational requirements. Furthermore, a mixed-method study by Pozas, Letzel-Alt, and Schwab (2023) on two hundred and thirty-three German secondary school teachers found that while DI increases job satisfaction, it also raises stress levels due to above discussed barriers.

Reflective practice is vital in overcoming any issues and challenges of DI, enabling teachers to critically examine their methods and assumptions (Brookfield, 2017). By cultivating a reflective culture, schools lay the groundwork for continuous improvement across all aspects of learning and teaching, including DI (Hall and Simeral, 2017). The School Self-Evaluation (SSE) Guidelines and the Looking at our Schools (LAOS) 2022 Framework both emphasise this approach. The SSE Guidelines provide a structure for schools to conduct collaborative, evidence-based reviews to identify teaching strengths and weaknesses, while the LAOS framework sets standards for school performance, stressing the importance of ongoing professional development and focusing on reflective and collaborative practices at the core of educational excellence (DE, 2022a; DE, 2022b). Complementing these, the Teaching Council's Cosán framework (2016) underscores the importance of autonomous, reflective professional development and the critical role of a collaborative community in the learning process for educators.

2.6 Conclusion

This chapter has delved into pertinent literature essential for conducting a small-scale study on implementation of DI to accommodate diverse student needs. It provides a concise critical analysis of the existing literature outlining DI, the barriers teachers often encounter when attempting to incorporate DI strategies. The research aims to identify the DI methodologies employed by teachers across JC subjects. Furthermore, the research endeavours to identify strategies recommended by teachers to enhance their inclusive practices, reduce the workload

associated with DI, and contribute to their overall mental well-being. The study will aim to answer the following questions:

1. How do teachers operationalise DI in their JC classrooms?
2. What strategies could help teachers enhance their DI practices to foster a more inclusive environment?

Chapter 3: Methodology

3.1 Introduction

This qualitative investigation aims to explore the integration of DI within JC classes, identify effective strategies advocated by educators to augment their inclusive pedagogies. This chapter outlines the research paradigm guiding this inquiry, justifying interpretivism as the most suitable framework for understanding the nuanced experiences of teachers in implementing DI. Subsequently, the chosen methodology of semi-structured interviews is elaborated upon, highlighting its capacity to capture the complexities of DI implementation through rich, contextual insights. The sampling method and sample size (n=5) are also specified. An anticipation of potential limitations will be offered, acknowledging constraints such as small sample size and researcher subjectivity, while also outlining proactive measures to mitigate their impact on the validity and reliability of the findings. Ethical considerations regarding informed consent, confidentiality, and anonymity are also addressed, ensuring compliance with ethical guidelines.

3.2 Research Paradigm - Interpretivist Project

Positivism posits that objective reality can be quantitatively measured. It relies on statistical tools and computerised programs to analyse numerical data collected through experiments, surveys, and questionnaires. Daniel (2016) notes that the risk of researcher bias is minimised within this scientific paradigm due to the lack of direct contact between participants and researchers. Creswell (2002) contrasts quantitative research's aim - to validate or challenge established theories - with qualitative research's goal of uncovering nuanced understandings based on individual experiences, which are inherently less generalisable. Thus, methods yielding objective data are typically not favoured by interpretivists, who argue that the complexity of social sciences is due to the varied perspectives and interpretations individuals have of their environments. Interpretivist researchers maintain that the context in which a study is conducted is paramount for interpreting the gathered data. Thanh and Thanh (2015), referencing Willis (2007), highlight interpretivism's core belief that reality is socially constructed, thereby

underscoring the subjectivity in investigating specific phenomena. This stands in stark contrast to the positivist paradigm, which is founded on objectivity and quantification. Interpretivism, instead, values the holistic experiences of individuals. For this reason, the interpretivist paradigm is deemed most appropriate for exploring teachers' views and experiences, as it accommodates the subjective and complex nature of educational environments (Thanh and Thanh, 2015).

3.3 Research methodology - Qualitative research

Recognising the need for both quality and quantity in educational research, this study aims to augment knowledge about differentiated strategies and propose supportive initiatives for teachers (Daniel, 2016). To determine the most appropriate research method, a critical evaluation of both qualitative and quantitative methods was undertaken. Positivist researchers assert that phenomena regarding human experiences are objectively quantifiable, adopting quantitative strategies (Rahman, 2017). While quantitative methods, such as questionnaires, offer precise statistical analyses based on deductive logic and provide objective explanation of a phenomena, they may overlook the nuanced complexities and subjective experiences inherent in the research context (ibid.). Conversely, qualitative methods offer an in-depth exploration of individual perspectives, allowing for a richer understanding of the social and cultural intricacies surrounding the study (Ugwu and Eze Val, 2023). While Daniel (2016) suggests a quantitative researcher's detachment can maintain objectivity, this study necessitated a closer rapport with participants. Investigating teachers' individual experiences and views within the school setting requires trust, which a distant relationship would hinder. This trust is essential for eliciting authentic insights about their teaching practices, including potentially sensitive experiences and honest opinions. Maxwell (2012) argues that, unlike quantitative investigation, qualitative research design, particularly through interviews, offers flexibility. This interactive approach allows for adjustments, facilitating a clearer understanding of intricate matters. Qualitative research delves into respective affairs, resulting in better comprehension of various views and perceptions (Klein and Myers, 1999). Consequently, the qualitative methodology emerged as the more suitable approach, as it does not only aim to address inquiries regarding personal context and experiences from the individual's perspective, but also enables a deeper exploration and interpretation of the multifaceted aspects of the research focus (Xiong, 2022).

3.4 Research Method - Interview Process

The decision to use interviews as the main data collection method was not only strategically aligned with the study's goals but also informed by the advantages interviews have over questionnaires. As Bell (2010, p. 161) posits, that 'questionnaire responses have to be taken at face value, but a response in an interview can be developed and clarified', underscoring the value of interviews in allowing for deeper exploration and clarification of responses in real-time. The researcher's familiarity with the urban post-primary school located in the Midlands enabled a seamless interview process, ensuring a conducive environment for gathering data. Following approval from Hibernia College's Ethics Committee, a package, consisting of an information sheet, letter of consent, and sample interview questions, was directly submitted to the school principal to obtain permission for conducting interviews within the facility. In designing the interview questions, the researcher employed the funneling strategy, transitioning from general to more sensitive topics to enhance participant comfort and mitigate potential validity issues associated with question wording, as emphasised by both Smith (1995) and Breakwell (2006). Prior to the interviews, the questions underwent piloting with a participant to identify and address potential issues, leading to adjustments in question sequencing and the development of prompts to encourage voluntary responses, thus improving the interview structure and data quality. Participation was voluntary, with measures taken to ensure participant comfort and engagement, including conducting interviews at the interviewees' convenience within the school premises.

3.5 Population and Sampling

To enhance the credibility and validity of this research, interviews were conducted with a diverse group of participants, including teachers of various subjects and with differing levels of experience, minimising biases that might arise from relying on a sole source (Krefting, 1990). Purposive sampling entailed the deliberate selection of participants meeting the inclusion criteria, such as fully qualified teacher with minimum of one year of teaching experience, and teaching or has taught junior cycle subjects. To ensure a richer exploration of diverse experiences and perspectives, this strategy was complemented by employing maximum variation sampling.

Morse (1991) emphasises the importance of the researchers' control over the sample composition to ensure adequate and relevant information, suggesting that a larger number of participants could facilitate more comprehensive data collection. Initially, the researcher considered conducting three one-hour semi-structured interviews to ease recruitment, preferring a smaller number of participants. However, concerns arose that the extended time commitment could discourage potential participants. Thus, a shift towards utilising five thirty-minute interviews emerged as a more appropriate approach. The researcher acknowledges limited prior experience in conducting interviews, a potential limitation given Morse's (1991) assertion that seasoned researchers can work effectively with smaller sample pools.

3.6 Data Analysis

The data collected from interviews were meticulously analysed using thematic analysis, which identifies patterns or themes within qualitative data (Braun and Clarke, 2006). This analysis was guided by complex reasoning through an 'inductive-deductive logic process' (Creswell, 2013, p.45). The researcher employed Braun and Clarke's (2013) six-step framework. To preserve the authenticity of the data and facilitate a deeper understanding of its richness, each interview was transcribed verbatim immediately upon completion (see Appendix 5 for interview samples). Bird (2005, p.227) advocates that the transcription of the verbal data should be regarded as 'a key phase of data analysis' as it informs the researcher the depth and breadth of the data.

Simultaneously, the interview procedure was evaluated for potential necessary adaptations aimed at improving the process and ensuring the quality of the acquired data. In phase two of the analytic process, manual coding grouped the data into preliminary themes. This immersive engagement with the data allowed for the initial development of themes, a process Terry et al., as cited in Willig and Stainton-Rogers (2017), described as 'subjective and interpretative'. This highlights the flexibility of thematic analysis, contrasting with the precision expected in quantitative analysis. The initial themes were reviewed, defined, named, and re-named to ensure cohesion and clarity. Member-checking was utilised to enhance credibility, enabling participants to review, verify data and interpretations, and provide additional information, as necessary. The recurring themes were identified through thematic analysis, utilising a table to organise codes and corresponding transcript evidence (Appendix 6). Throughout the procedure, the researcher

conscientiously prioritised reflexivity, rigorously monitoring personal biases to ensure that the data interpretations accurately reflected the participants' perspectives and experiences.

3.7 Limitations

The research was conducted in a post-primary DEIS school with a small sample size of five participants, raising the issue of limitations in two aspects. Firstly, as this is a small-scale study, the small sample size limits the generalisability of the results to the entire teacher population (Thomson, 2011; Daniel, 2016). However, this study provides in-depth insights into a specific context, offering a foundation for future studies with larger, more representative samples. Nelis et al. (2021) highlight a significant disparity in student diversity between DEIS and non-DEIS schools. Their report indicates that DEIS schools have a three-fold increase in students from disadvantaged socio-economic backgrounds (60%) and a higher proportion of students with SEN. These factors, along with reported challenges like behaviour issues, lower motivation, and reduced aspirations, suggest that teachers in DEIS settings face a more substantial challenge in effectively addressing the diverse needs of their students. This complexity underscores the challenges of generalisability in research in social sciences. Qualitative research lacks standardised procedures and rests primarily on the researchers' innovation in gathering, assessing, and analysing and interpreting data, confirming its flexible attribute (Maxwell, 2012). However, this approach also asserts that conducting the same research in a different setting will not yield identical outcomes (Bryman, 2012). Qualitative research, unlike quantitative approaches, lacks reproducibility; the information collected and thematically analysed qualitatively may be typical in one setting but not necessarily applicable in another (Schofield, 2007). Findings were restricted to the experiences of the five teachers within the same school facility; thus, generalisation of results depends on individual evaluations of their applicability in different contexts. Morse (2009) proposed that blending qualitative methods enables the inclusion of diverse perspectives that might otherwise go unnoticed. The researcher acknowledges that using only semi-structured interviews restricted data triangulation.

3.8 Ethical considerations

The research procedure could not commence until a completed Ethics Form was submitted, and full approval had been granted by Hibernia College's Ethics Committee. Following this approval, the researcher sought permission from the school principal via a letter to conduct the study within the school environment. The letter conveyed information regarding the study's objectives, purpose, and method, while also ensuring strict compliance with the General Data Protection Regulation (GDPR) (Appendix 1). Once permission was granted, participants were first verbally invited to take part in the study and then given an information sheet and a consent form (Appendices 2 and 3). Upon the return of the signed consent forms, aligning with the Ethical Guidelines for Educational Research (British Education Research Association, 2018), the interviews were scheduled to accommodate the preferences and convenience of the participating teachers (Appendix 4). In line with Hibernia College's research ethics guidelines, data was not collected from students or individuals below the age of eighteen. Participants were repeatedly assured of their option to withdraw from the study at any point during the procedure. To comply with confidentiality and anonymity, no names of individuals or location of the school were mentioned in the study, with pseudonyms used to avoid identification issues. To ensure data confidentiality and to prevent unauthorised access, all data is securely stored in password-protected folders, adhering to the data protection guidelines provided by Hibernia College. No data or files will be left in open areas accessible to others, avoiding any potential breach. Participants were informed about these procedures beforehand to ensure transparency and compliance with confidentiality measures.

3.9 Conclusion

In conclusion, this chapter has thoroughly explored the research paradigm, methodological approach, and instruments considered most suitable for the study. After careful consideration and comparison, the interpretivist research paradigm emerged as the most appropriate choice due to its alignment with the study's objectives of understanding teachers' experience with DI. The qualitative methods embraced within this paradigm, particularly semi-structured interviews, offer a robust framework for delving into participants' personal contexts and experiences. However, it

is important to acknowledge the inherent limitations of the research procedure, particularly regarding the generalisability and transferability of findings from a small-scale study. Despite these constraints, the ensuing chapter will delve into the data analysis process, providing insights into the interview findings.

Chapter 4: Findings

4.1 Introduction

This chapter presents the findings from a qualitative analysis of five twenty to thirty-minute interviews conducted with teachers of JC classes. A systematic thematic analysis identified key themes: instructional strategies, reflective practice, learning environment, and professional development and resource sharing. These themes offer critical insights into the differentiation methodologies employed by post-primary teachers and provide their recommendations for enhancing inclusivity and reducing the workload associated with DI, thereby directly responding to the research questions.

4.2 Instructional Strategies

In addressing the diverse needs of students, teachers deploy a variety of strategies to cater to individual learning preferences and abilities, reflecting a keen awareness of student diversity. This approach is exemplified through the integration of multimodal instructional tools, including visual, auditory, and kinaesthetic elements, to ensure that lessons resonate across a wide spectrum of learning styles. Visual aids, *'PowerPoints that'll have integrated pictures and they'll have videos,'* interactive digital technology, and hands-on activities are methodically incorporated into lesson plans to engage different senses and cultivate a more inclusive learning environment. Teachers also employ strategic questioning to challenge pupils at various cognitive levels, as one teacher stated that *'the difficulty of the questions will vary, depending on the students I am asking the question to.'* This involves higher and lower order questions to respectively challenge advanced students and support lower ability students with foundational knowledge. DI such as offering choices on research tasks, offering varied formats of materials (digital, paper, audio) are common practices. Another teacher highlighted the use of *'scaffolding for writing assignments through the graphic organisers or sentence starters,'* tailored to students' skill levels. These practices, as noted, *'empower students to help them take ownership in their learning,'* and foster an educational environment where all students can thrive. Such practices were reported to significantly enhance student engagement. Through these targeted efforts,

teachers aim to bridge the gap between diverse learning needs and academic demands, ensuring that instruction is both accessible and challenging for all.

Cooperative learning was identified as a significant theme in the findings, with students engaging effectively in well-organised small groups to optimise their own and each other's learning. Teachers consistently employed group and pair work as a central strategy for differentiation, facilitating the development of responsibility, independence, and both social and higher-order thinking skills among students. To foster inclusivity, groups were formed based on student abilities or interests. For instance, one teacher highlighted the importance of group work, especially in subjects like Irish, stating, *'put them in groups with students who have maybe more of an understanding or even more of an interest in Irish.'* Heterogeneous groupings allowed more capable students to provide scaffolded support to their peers, enhancing peer-learning opportunities. In contrast, some teachers preferred homogeneous groupings for activities such as science experiments, where less able students received explicit instructions, and more able ones were challenged with problem-solving tasks. A preference for pair work was noted, *'focused pair work helps a lot of the students as long as the pair is right,'* suggesting that strategic pairing can significantly enhance the learning experience, while also highlighting the challenge of choosing groups to get the best from the strategy.

Interviews revealed extensive utilisation of technology across subjects to enhance educational engagement and effectiveness. Teachers adapt technology to meet different learning needs: English teachers incorporate audiobooks to assist students with literacy challenges, while the science teacher reported utilising digital modelling simulations to explain human systems. The pervasive use of technology is highlighted by the ubiquitous presence of tablets in the classroom, facilitating activities such as *'online games and quizzes'* that promote digital literacy and personalised learning paths. One teacher noted, *'All students have tablets in class. So, I tend to try to integrate technology as much as possible,'* reflecting a proactive integration of technology. Another teacher added, *'I incorporate technology for the diverse learners,'* emphasising the strategic integration of technology to meet various educational needs. This highlights technology's potential as a valuable tool for DI.

4.3 Reflective Practice

Teachers must reflect on their practices and consequently adapt their teaching approaches to successfully implement DI. This necessity was underscored by a teacher's remark: *'a lot of it is down to the teacher being able to [...] continually adapt and to be able to cater to students.'* Feedback gathered during and after lessons informs continual improvements in differentiation strategies, allowing teachers not only to refine their approaches but also to develop a deep understanding of each student's learning journey. As suggested, *'You need to be flexible; you need to be constantly having ongoing reflections [...] recognising when something works and when something doesn't work or when something may just need some tweaking.'* The iterative process of trial and error was a common theme across the interviews: *'It's all about adaptability, seeing what works and what doesn't for the particular students'*.

Teachers highlighted the critical role of ongoing data collection in effective differentiation, emphasising the use of observations during lessons, and both formative and summative assessments to understand student needs. One teacher noted, *'I am always monitoring student participation [...], I'm always analysing their work and trying to gauge feedback. I can gauge the effectiveness of differentiation by including the positive responses from them [...] and their active participation.'* This continuous assessment allows teachers to identify each student's unique needs, abilities, and learning preferences, facilitating the development of customised instructional approaches. Such reflective practice is integral to refining both short and long-term teaching strategies to enhance student engagement and learning outcomes.

Establishing classrooms that prioritise *'listening to the students'* can aid teachers in identifying elements that promote learning and enjoyment, as well as obstacles that hinder learning progress. This approach not only empowers students by involving them actively in their educational processes but also cultivates a sense of ownership over their learning outcomes. and helps educators tailor instruction to meet the unique needs and preferences of each student. Teachers reported that integrating student feedback is vital for refining and adapting DI strategies effectively. For example, one teacher noted, *'If students feel I'm doing something that doesn't work for them, they'll openly tell me.'* This direct feedback allows teachers to make immediate

adjustments, ensuring that teaching methods are responsive and tailored to students' diverse needs. Another teacher highlighted the importance of this interactive dialogue, *'I often ask within a class what you like doing, did you enjoy that task, was that fun, did you get a lot from it and if it didn't then I know I need to re-evaluate it.'* These reflections underline the critical role of student voices in shaping educational practices and confirm the dynamic nature of effective teaching within JC classrooms.

4.4 Learning Environment

Teachers play a crucial role in student learning and development, significantly influencing outcomes by building strong relationships with their pupils. As one teacher noted, *'the most important thing is getting to know the kids.'* This involves understanding individual student needs and fostering trust, which are vital for effective engagement and motivation in the classroom. Another teacher highlighted the importance of this connection: *'What works for that pupil and what doesn't work, you can only know that by talking to them and building that relationship and getting them to trust you.'* The establishment of mutual respect and rapport is fundamental, as confirmed by teachers' observations: *'When you have a strong relationship with the students, they get on board a lot more with you.'* This foundation enables students to respond positively to DI methods, as they feel supported and understood, leading to increased engagement and a willingness to excel, as evidenced by one participant: *'[...] my students respond positively to these differentiation strategies, I can tell by observing increased engagement in class or discussions.'* The concept of 'One Good Adult' plays a crucial role in fostering a supportive environment that enhances both academic success and student wellbeing, aligning with the focus of the SSE process's emphasis on wellbeing promotion.

The importance of creating a safe and inclusive learning environment emerged as a critical factor in promoting student engagement. This is particularly significant for students with additional needs, shy students, and gifted students, who may feel self-conscious and less likely to participate, especially in activities requiring verbal interaction. Teachers emphasised the use of DI strategies that cater to diverse learning needs in a discreet manner, ensuring all students feel supported and included in the learning process, without drawing undue attention to their

individual needs. One teacher explained, *'It's really important for students with additional needs that differentiation isn't made obvious in the classroom environment. They don't realise I am adjusting tasks [...] modifications are subtle.'* This approach ensures that all students can engage in learning activities without feeling singled out, fostering a classroom environment that supports all learners equitably. Students who feel a sense of belonging are more likely to engage in activities and follow instructions, due to increased comfort in their environment. This heightened engagement often leads to fewer behavioural issues, creating a more harmonious classroom atmosphere. Teachers have observed this phenomenon, *'you've more engaged students, you've students that are happy and have a smile on their face when they walk into your classroom. You've little behaviour issues and very little classroom management issues.'*

A consistent learning environment significantly enhances educational outcomes. By establishing a stable and respectful environment with clear expectations, teachers empower students to engage in risk-taking and self-directed learning. The benefit of having the same teacher for consecutive years was emphasised by teachers, allowing them to identify and effectively implement DI strategies for specific classes, thereby enhancing student achievement. *'[...] that's why I advocate for having the same cohort of students from first to third year, because you can get to learn about the students [...] And then when you get into your second and third year, you know what works and what doesn't.'* Essentially leading to enhanced self-efficacy as *'they do tend to eventually become more independent.'* While consistency is beneficial for some, it is also important to recognise that varied teaching styles can cater to the diverse preferences of different students, suggesting a balanced approach.

4.5 Professional development and resource sharing

Teachers unanimously acknowledged the complexities of catering to diverse learning needs within their classrooms. Time constraints and the substantial effort required to develop individualised resources emerged as significant challenges, highlighting the demanding nature of effective DI. All teachers stressed the importance of continuous professional development (CPD) to stay current with evidence-based methodologies and DI strategies. However, a consensus emerged for more targeted workshops. As one teacher stated, *'we could be given more*

workshops, particularly those that provide practical, hands-on training to see methodologies in action. This suggests a gap between current CPD offerings and teachers' specific needs. Effective, subject-specific CPD programmes require a deeper understanding of these needs.

Despite the increased workload associated with DI, teachers reported that the benefits, such as improved student engagement and outcomes, justified the extra effort. *'I don't mind the extra workload when I see the benefit of it.'* This sentiment was echoed by others, with one teacher stating that, *'It's [...] really satisfactory, irrespective of the workload, for students to get to their best point.'* Another educator highlighted the rewards of seeing students excel, by stating: *'it is a huge workload, but it is really satisfactory to see students being able to achieve their best, regardless of their academic needs.'* All reflecting a sentiment that underscores the commitment to student success despite potential personal cost.

Collaboration was highlighted as a crucial element in teaching practices, particularly evident during monthly teach-meets where *'teachers can get together and discuss different methodologies that have worked well in their classes.'* Furthermore, teachers reported feeling supported by management in their efforts to implement DI, notably through initiatives like the L2LP training, which was tailored to meet staff-identified needs. Despite unambiguous evidence of supportive management and collaborative efforts, there was a consensus on the need for more structured dialogue regarding differentiation approaches within and across departments to enhance consistency and efficacy in student outcomes. Teachers advocated for a unified approach to differentiation, recognising its potential to improve educational practices.

Interviews revealed that teachers unanimously recognise the value of shared resources in enhancing their instructional effectiveness, despite the significant effort required to create such materials. They strongly advocated for a centralised repository to streamline the exchange of educational strategies and tools. *'A central bank of strategies would be very, very helpful,'* one educator remarked. Another teacher elaborated, *'resources for each subject in this shared drive would be huge with differentiated instruction materials, assessment tools, and peer collaboration opportunities to enhance teachers' ability to implement them.'* The data highlighted the importance teachers place on collaborative practices and developing communities of practice,

noting how these efforts contribute to professional growth, strengthen networks, promote best practice sharing, and drive innovation in classroom strategies and personalised learning, leading to enhanced student outcomes.

4.6 Conclusion

This chapter has delineated key findings that directly address the research questions. It unveiled themes such as instructional strategies, reflective practice, and the learning environment, elucidating teachers' concepts of DI. Professional development and resource sharing emerged as prevalent recommendations for enhancing DI practices. A critical analysis of these findings will be presented in the subsequent chapter.

Chapter 5: Discussion

5.1 Introduction

This chapter analyses teachers' concept of DI by examining interview data and evaluating key themes within the broader scholarly context. It assesses teachers' perceptions and implementations of DI and explores their recommendations for strategies to enhance their differentiated teaching approaches.

5.2 Teachers concept of DI

Tomlinson's (2014) framework of differentiation emphasises the critical need to acknowledge and address student diversity in the classroom. Despite the extensive evidence supporting the benefits of DI for student attainment and motivation, studies suggest a significant gap between theory and practice. While educators may support the principles of inclusive education and acknowledge the value of DI, studies highlight discrepancies in how these principles translate into classroom realities (Westwood, 2013; Bondie, Dahnke and Zusho, 2019; Pozas et al., 2021). The complexity of DI poses significant challenges. The diversity of DI strategies and the intricate mix of student needs and learning styles can be daunting for educators (Tomlinson et al., 2003). Additionally, pre-existing beliefs and limited understanding of DI often result in misconceptions about its implementation (Dixon et al., 2014; Smale-Jacobse et al., 2019). The first research question addresses teachers' concept of DI outlining teachers' attitude and differentiation strategies.

Contrary to the above secondary sources, findings show teachers consistent utilisation of DI across various subjects. All teachers recognised student diversity in their classes, a fundamental step toward effective instruction planning. Prerequisite to DI is being familiar with and understanding students' attributes in each class; a view shared by all teachers. When teachers possess a thorough knowledge of their students' cognitive ability, readiness, interest, learning styles, they can more accurately tailor their instructional strategies, ensuring that each student receives the appropriate level of challenge and support (Tomlinson, 2014). Educators reported

employing various instructional strategies that illustrate a profound understanding of diverse learning needs. They also integrate multimodal resources, such as visual, auditory, and kinaesthetic tools, to engage a spectrum of learning styles. Strategies used include the use of enriched multimedia presentations, interactive digital technologies, and tactile activities, all meticulously planned to stimulate different senses. While not all intelligences were noted, this approach aligns with Gardner's (1999) theory that students benefit from activities challenging diverse intelligences. The aim of tailoring DI to match learning profiles is to devise teaching methods that resonate with how students naturally learn best, while also expanding their capabilities to learn in new ways (Gardner, 1999; Tomlinson, 2001). However, Whitmen (2023) criticises this method, noting a lack of empirical support for aligning instruction with preferred learning styles, suggesting a shift towards more evidence-based educational strategies.

Participants consistently highlighted using baseline data to identify student needs and stressed the critical role of ongoing formative and summative assessments in adjusting instructional strategies. This finding aligns with Tomlinson's (2005) framework, which asserts that such assessments are crucial for accurately identifying student needs and monitoring their academic progress towards well-defined learning objectives. These insights reinforce the necessity of integrated assessment systems in effective DI. Contrary to Putra's (2023) findings, which suggest that teachers often overlook data on student readiness, interview results revealed a strong emphasis on the significance of assessments in determining student readiness and effectively planning DI. This discrepancy may be due to demographic and contextual differences; for example, teachers in highly diverse environments like the multicultural urban DEIS school where this study was conducted are more attuned to the nuances of using assessments to tailor DI effectively.

Tomlinson's (2014) framework emphasises the modification of content, process, and product based on students' attributes, a principle that is clearly reflected in the diverse instructional strategies employed by educators. These strategies include strategic questioning tailored to different cognitive levels, offering choices in research tasks, and providing learning materials in various formats (digital, paper, and audio). Such flexibility in instructional delivery not only caters to the varying educational needs of students but also challenges advanced learners with

higher-order questions while supporting those with foundational needs through lower-order queries. Additionally, scaffolding techniques are customised for individual writing assignments using tools like graphic organisers or sentence starters, which are adjusted to match individual skill levels. These practices empower students and foster greater ownership of their learning processes, thereby creating a dynamic and supportive educational environment. Notably, these strategies significantly enhance student engagement and aim to bridge the gap between diverse educational needs and rigorous academic demands.

The extensive use of technology across JC subjects, as revealed in the interviews, underscores the importance of integrating ICT into lessons to enhance educational engagement through DI. Teachers are leveraging technology to meet diverse learning needs: English teachers use audiobooks to assist students with literacy challenges, while science teachers employ digital modelling simulations for teaching complex systems. Student access to tablets enables a range of activities, from online games and quizzes to promoting digital literacy and personalised learning paths. This proactive adoption of technology to support DI aligns with contemporary educational directives, such as the Digital Strategies for Schools to 2027, emphasising the role of ICT in enhancing student engagement through customised learning experiences. Constant access to devices facilitates seamless incorporation of digital tools, fostering adaptive and inclusive educational environments. Regular evaluations of technology use are crucial, as noted by Schön (1990), allowing teachers to continually refine their approaches based on student feedback and changing educational goals. However, challenges remain, particularly in ensuring equitable benefits from technological integration across all student groups. While Gubacs (2004) posits the enhancement of critical and creative thinking skills through ICT, the need for further teacher training in technology use was evident from the interviews, underscoring the necessity to address the challenges of implementation to optimise educational outcomes in diverse learning settings.

To successfully implement differentiated strategies, it is crucial to foster a positive learning environment where students feel safe, respected, and supported. This atmosphere enhances student motivation and participation and improves learning outcomes in diverse educational settings. This sentiment, consistently echoed throughout the interviews, underscores the pivotal role a supportive atmosphere plays in enhancing learning outcomes in a diverse setting. As one

teacher noted, *'When you have a strong relationship with the students, they get on board a lot more with you.'* Tomlinson (2014) stresses the importance of meeting students' emotional needs to foster a conducive learning environment. Teachers are pivotal in this regard, as their role in building strong relationships, showing genuine interest in pupils, and understanding individual needs significantly influences student outcomes. The concept of 'One Good Adult' further illustrates the impact of a supportive adult in a student's educational journey (Jigsaw, 2021; NCCA, 2021). Student wellbeing has been at the SSE process's focus and is systematically integrated into all aspects of school experience (NCCA, 2017; DE, 2022a). The presence of such a figure is especially significant for students from disadvantaged socio-economic backgrounds, which is more prominent in DEIS schools. Teachers noted that consistency with a single teacher throughout JC is vital for identification and effective implementation of DI strategies for specific classes, thereby improving student achievement. While consistency has many benefits, using diverse teaching styles can better meet varied student preferences, highlighting the need for a balanced approach. Further research is needed to examine how combining consistency and teaching style diversity can optimise learning outcomes for diverse student demographics.

Johnson and Johnson (1994) assert that cooperative learning enhances learning outcomes and social skills, as collaboration fosters positive relationships among pupils; thus, cultivating a safe and supportive environment. Tomlinson (2001) also supports this pedagogical approach, asserting that DI is most effective when it incorporates collaborative elements. The findings underline the vital role of cooperative learning in boosting student engagement and outcomes, aligning with Johnson and Johnson's (2017) emphasis on strategic grouping and assigning roles to create safe learning environments. Group and pair work appeared as central strategies for DI. Teachers reported grouping pupils by abilities or interests to foster inclusivity and maximise learning efficiency. While heterogeneous groupings allow more capable students to support their peers, enhancing peer-learning opportunities, some teachers opt for homogeneous groupings for tasks like science experiments, tailoring instructions to meet varied student capabilities. These practices align with Bondie, Dahnke and Zusho's (2019) study, which interprets DI as the ability grouping of learners and support Jones and Jones' (2008) view that cooperative learning and teaching strategies significantly improve student learning. Furthermore, the social interactions fostered by cooperative learning contribute to increased self-efficacy and autonomy among

students (Johnson and Johnson, 1999; Thanh, 2013; Goodman, 2016).

Incorporating student voice into classroom dynamics significantly enhances the learning environment by enabling teachers to identify factors that promote or hinder student engagement and academic progression. This approach not only empowers students by actively involving them in their educational processes but also fosters a sense of ownership over their learning outcomes. Such engagement is pivotal in tailoring instruction to meet the individual needs and preferences of each student, aligning closely with Tomlison's (2001, 2014) framework of DI. In accordance with the SSE Guidelines (2022a) and the Framework for Junior Cycle (2015), which emphasise the value of students' voices in their educational experiences, findings indicate that teachers recognise the importance of integrating student feedback as a critical component for effectively refining and adapting DI strategies, as stated by one teacher *'I often ask within a class what you like doing, did you enjoy that task, was that fun, did you get a lot from it and if it didn't then I know I need to re-evaluate it'*.

Complementing this student-centred approach is the practice of reflective teaching, which is foundational to highly effective teaching (DE, 2022b). This involves teachers critically evaluating their own teaching methods, interactions with students, and the overall classroom environment. Engaging in this introspective analysis helps educators identify strengths and weaknesses in their approach, leading to targeted modifications that enhance their pedagogical effectiveness. The significance of reflective practice is highlighted by findings that teachers prioritise reflection during and after lessons to evaluate and adjust their differentiated strategies. Hall and Simeral (2017) support this approach, arguing that fostering a reflective culture is fundamental for the ongoing improvement of all aspects of learning and teaching. This cycle of reflection and adaptation is essential for teachers to remain responsive to the evolving needs of their students and the dynamic nature of educational settings. It embodies the principles of LAOS, ensuring that teaching methods continuously evolve to meet educational challenges effectively (DE, 2022b).

5.3 Teachers' suggestions to enhance DI practices

Previous studies have identified time constraints, inadequate initial teacher training, and insufficient support from management as significant barriers to implementing DI (Drudy and Kinsella, 2009; Konstantinu-Katzi et al., 2013; Dixon et al., 2014). Despite acknowledging that DI is time-consuming and increases their workload, all teachers emphasised that its positive impact on student outcomes far outweighs these challenges. One teacher found that with time, experience, and access to extensive resources, the process became less challenging. Teachers unanimously agreed that the benefits of DI, such as improved student engagement, enjoyment, and achievement, justify the increased effort, stating that 'it is really satisfactory to see students being able to achieve their best.' Similarly, Pozas, Letzel-Alt, and Schwab (2023) noted that integrating DI enhances job satisfaction among teachers. Contrary to their findings, no teachers in this study reported heightened stress levels; although this was not explicitly queried, suggesting a potential area for further investigation.

Findings highlighted a desire for more targeted CPD programmes. Teachers emphasised the need for practical, hands-on workshops that allow them to see methodologies in action rather than purely theoretical sessions. This suggests a need for experiential learning within professional development, where teachers can directly apply what they learn in a controlled environment before implementing it in their classrooms. The Teaching Council's (2016) Cosán framework supports teachers in determining the learning that benefits them. Collaborative professional practice is emphasised as a key policy in Cosán (Teaching Council, 2016). The findings indicated inconsistencies in resource sharing among teachers, both within and across departments, suggesting a lack of collaboration among staff. The importance of collaborative school communities in creating highly effective practices is reflected in the LAOS framework (DE, 2022b). SSE has a significant role in advising school practices; one of its primary focuses could be on enhancing teacher collaboration within and across departments or exchanging best practices with other schools.

The presence of supportive school management in the setting was acknowledged by all teachers, which might explain the observed positive attitudes of teachers towards student diversity and

their practice of DI. Educational leaders are crucial in cultivating a learning environment that encourages collaboration among teachers, enhances teacher effectiveness, improves student outcomes, and promotes a positive school culture (Dixon et al., 2014; DE, 2022b; Singh, 2024). This stresses the significant role of management in fostering successful DI practices to meet diverse educational needs through supporting educators.

5.4 Conclusion

This chapter demonstrated a notable contrast with previous research, which often indicated inconsistent use of DI. The study revealed that teachers have a positive attitude towards employing DI strategies to address student heterogeneity in JC classrooms. Supportive management, collaborative collegiality, adequate resources, and teacher training were identified as essential in assisting teachers in their efforts to ensure equal opportunities for all pupils. Recommendations for practice and future research will be discussed in more detail in the subsequent chapter.

Chapter 6: Conclusion

6.1 Introduction

This study, inspired by the researcher's experiences as an SNA and student teacher, explored the challenges teachers face in accommodating the diverse needs of students. Focusing on teachers' attitudes and their application of DI in JC classrooms, this research has not only reiterated the complexities encountered but has also advanced the scholarly community's understanding by identifying actionable strategies that promote inclusivity. This concluding chapter synthesises the findings, discusses their broader implications, and proposes recommendations for practice and future research, ensuring that the insights contribute to the ongoing discourse in DI.

6.2 Summary of Findings

The study aimed at gaining insight into whether teachers utilise DI in their JC lessons. Based on teachers' responses from five twenty to thirty-minute interviews, the researcher can conclude that teachers actively incorporate DI into their lessons to cater to heterogeneous student populations. They reported the utilisation of various differentiation methods to address the diverse needs of their students, such as strategic questioning, scaffolded resources, choices in tasks and resources, use of ICT, with cooperative learning opportunities regarded as an invaluable pedagogical approach in establishing a safe and supportive inclusive environment, aligning with Johnson and Johnson (1994) and Tomlinson's view (2001). Strategies were informed by data regarding student's characteristics, formative and summative assessment results, and student voices. These results are in line with Tomlinson's (2014) DI framework. In accordance with the Department of Education Guidelines (2022b), teachers reported reflective practice vital in effective incorporation of instructional practices. The interview findings underscored the crucial role of supportive leadership in cultivating an inclusive school culture that encourages and facilitates collaborative practices among teachers, allowing them to share and enhance their DI experiences effectively (*ibid.*). All teachers recognised the importance of subject-specific CPDs to acquire new DI skills, essential for advancing their teaching forward.

6.3 Limitations

The limitations of this research include its small sample size (n=5) and the DEIS school context, representing only about thirty percent of Irish post-primary schools (DE, 2023a; DE, 2023b). The study's use of Tomlinson's framework narrowed its scope, focusing only on certain theoretical interpretations of DI. Additionally, the data collection focused primarily on interviews without direct classroom observations, limiting the ability to fully assess how DI strategies are implemented in practice. Thus, the applicability, scope and generalisability of results is limited. Nevertheless, it is noteworthy that the sample comprises teachers from diverse teaching levels and experiences. Despite its constraints, this study substantiates the positive attitudes and consistent use of DI strategies by teachers, diverging from prior studies from Bondie, Dahnke and Zusho (2019) and (Pozas et al., 2021), thereby contributing to the dialogue on inclusive education. The results offer actionable steps for enhancing DI practices that could shape future educational strategies and policy.

6.4 Recommendations

(a) Future Research

Future research should further investigate the discrepancies highlighted by this study between the acknowledged importance of using assessments for student readiness and DI planning, and the underutilisation of such data as observed by Putra (2023). Comparative studies could be valuable in understanding how the setting, DEIS versus non-DEIS, influences the adoption and effectiveness of assessment strategies in implementing DI. This could lead to more targeted strategies that enhance DI practices.

Future research should incorporate direct classroom observations to complement interview data, enhancing the understanding of how DI strategies are applied in practice and providing a richer, more contextual analysis of its implementation and effects.

(b) Future Practice

To support the sustainable implementation of DI, it is proposed that school management initiatives include targeted leadership training as part of the SSE process. This training should focus on developing skills necessary for supporting effective DI practices, managing resources efficiently, and fostering a collaborative and inclusive school culture. These SSE initiatives would empower school leaders to better support teachers, leading to improved student outcomes and a school culture that values continuous improvement and reflective practice. Incorporating subject-specific DI courses into both initial teacher and in-service training is also advised to further enhance inclusivity.

6.5 Conclusion

This study examined DI in JC classrooms, revealing teachers' strong commitment to adapting their strategies for diverse student needs. The findings highlighted the use of various DI techniques and underscore teachers' needs for more support in implementing these strategies effectively. It suggests directions for future research and practical enhancements in educational practices to better support heterogeneous learning environments.

References

- Ainscow, M. (1999) *Understanding the development of inclusive schools*. London: Routledge.
- Andrews, J. and Lupart, J. L. (2000) *The inclusive classroom: educating exceptional children*. Toronto, Canada: Nelson Thomson Learning.
- Beliavsky, N. (2006) 'Revisiting Vygotsky and Gardner: realising human potential', *The Journal of Aesthetic Education*, Summer, 40(2), pp.1-11. doi: 10.1353/jae.2006.0013.
- Bell, J. (2010) *Doing your research project: a guide for first-time researchers in education, health and social science*. 5th edn. Berkshire: Open University Press.
- Bird, C. M. (2005) 'How I stopped dreading and learned to love transcription', *Qualitative Inquiry*, 11(2), pp.226-248. doi: 10.1177/1077800404273413.
- Bondie, R. S., Dahnke, C. and Zusho A. (2019) 'How does changing 'one-size-fits-all' to differentiated instruction affect teaching?' *Review of Research in Education*, 43(1), pp.336–362. doi: 10.3102/0091732X18821130.
- Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3(2), pp.77-101. doi: 10.1191/1478088706qp063oa.
- Braun, V. and Clarke, V. (2013) *Successful qualitative research: a practical guide for beginners*. London: Sage Publications Limited.
- Breakwell, G. M. (2006) 'Interviewing methods', in Breakwell, G. M., Hammond, S., Fife-Schaw, C. and Smith, J. A. (eds.), *Research methods in psychology*. 3rd edn.. London: Sage Publications Limited, pp.232–253.
- British Educational Research Association (BERA) (2018) *Ethical guidelines for educational research*. 4th edn. [Online]. Available at: <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018> (Accessed: 6 September 2023).
- Brod, G., Werkle-Bergner, M. and Shing, Y. L. (2013) 'The influence of prior knowledge on memory: a developmental cognitive neuroscience perspective', *Frontiers in Behavioral Neuroscience*, 7(139), pp.1-13. doi: 10.3389/fnbeh.2013.00139.
- Brookfield, S. D. (2007) *Becoming a critically reflective teacher*. 2nd edn. San Francisco, CA: Jossey-Bass.
- Bryman, A. (2012) *Social research methods*. 4th edn. New York: Oxford University Press.
- Chaiklin, S. (2003) 'The zone of proximal development in Vygotsky's analysis of learning and instruction', in Kozulin, A., Gindis, B., Ageyev, V. S. and Miller, S. M. (eds.), *Vygotsky's educational theory in cultural context*. Cambridge: Cambridge University Press, pp. 39–64.

Chen, J. (2004) 'Theory of multiple intelligences: is it a scientific theory?' *Teachers College Record*, 106(1), pp.17-23. doi: 10.1111/j.1467-9620.2004.00313.x.

Coffey, S. (2011) 'Differentiation in theory and practice', in Coffey, S., Dillon, J. and Maguire, M. (eds), *Becoming a teacher: issues in secondary education*. New York: Open University Press, pp.197–209.

Creswell, J. W. (2013) *Qualitative inquiry and research design*. 3rd edn. London: Sage Publications Limited.

Daniel, E. (2016) 'The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum', *Journal of Education and Practice*, 7(15), pp.91-100. [Online] Available at: <https://files.eric.ed.gov/fulltext/EJ1103224.pdf> (Accessed: 9 September 2023).

Data Protection Act 2018, No. 7. [Online] Available at: <https://www.irishstatutebook.ie/eli/2018/act/7/enacted/en/html> (Accessed at: 3 April 2024).

Dáil Éireann (2023) Debate: *School facilities*, 25 July. [Online] Available at: <https://www.oireachtas.ie/en/debates/question/2023-07-25/501/#pq-answers-501> (Accessed; 08 June 2024).

Department of Children, Equality, Disability, Integration and Youth (DCEDIY) (2021) *Initial report of Ireland under the convention on the rights of persons with disabilities*. [Online] Available at: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/204196/138b7f87-c6e7-4176-bdd7-61b9e7fff6b9.pdf#page=null> (Accessed: 8 June 2024).

Dewey, J. (1997) *Experience and education*. London: Free Press.

Dixon, F. A., Yssel, N., McConnell, J. M. and Hardin, T. (2014) 'Differentiated instruction, professional development, and teacher efficacy', *Journal for the Education of the Gifted*, 37(2), pp.111-127. doi: 10.1177/0162353214529042.

Drudy, S. and Kinsella, W. (2009) 'Developing an inclusive system in a rapidly changing European society', *International Journal of Inclusive Education*, September, 13(6), pp.647-663. doi: 10.1080/13603110802106170.

Education Act 1998, No. 51. [Online] Available at: <https://www.irishstatutebook.ie/eli/1998/act/51/enacted/en/html> (Accessed: 17 April 2024).

Education for Persons with Special Educational Needs (EPSEN) Act 2004, No. 30. [Online] Available at: <https://www.irishstatutebook.ie/eli/2004/act/30/enacted/en/html> (Accessed at: 17 April 2024).

Florian, L. (2019) 'On the necessary co-existence of special and inclusive education', *International Journal of Inclusive Education*, 23(7–8), pp.691–704. doi: 10.1080/13603116.2019.1622801.

Gardner, H. (1999) *Intelligence reframed: multiple intelligences for the 21st century*. New York: Basic Books.

Gardner, H. (2006) *Multiple intelligences: new horizons*. New York: Basic Books.

Gray, K. C. and Waggoner, J. E. (2002) 'Multiple intelligences meet Bloom's taxonomy', *Kappa Delta Pi Record*, Summer, 38(4), pp.184-187. doi: 10.1080/00228958.2002.10516371.

Hattie, J. (2009) *Visible learning*. London: Routledge.

Haug, P. (2017) 'Understanding inclusive education: ideals and reality', *Scandinavian Journal of Disability Research*, 19(3), pp.206–217. doi: 10.1080/15017419.2016.1224778.

Heacox, D. (2002) *Differentiating instruction in the regular classroom: how to reach and teach all learners, grades 3-12*. Minneapolis, MN: Free Spirit Publishing Incorporation.

Hill, P. and Simeral, A. (2017) *Creating a culture of reflective practice: building capacity for schoolwide success*. Alexandria, Virginia: Association for Supervision and Curriculum Development.

Idol, L. (2006) 'Toward inclusion of special education students in general education', *Remedial and Special Education*, 27(2), pp.77–94.

Ireland. Department of Education (DE) (2022a) *School self-evaluation: next steps September 2022 - June 2026*. [Online] Available at: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/232734/3e6ca885-96ec-45a6-9a08-3e810b7cd1ea.pdf#page=null> (Accessed: 16 May 2024).

Ireland. Department of Education (DE) (2022b) *Looking at our school 2022: a quality framework for post-primary schools*. [Online] Available at: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/232730/4afcbe10-7c78-4b49-a36d-e0349a9f8fb7.pdf#page=null> (Accessed: 19 May 2024).

Ireland. Department of Education (2022c) *Digital strategy for schools to 2027*. [Online] Available at: <https://www.gov.ie/en/publication/69fb88-digital-strategy-for-schools/#digital-strategy-for-schools-to-2027> (Accessed: 11 May 2024).

Ireland. Department of Education (DE) (2023a) *Statistical bulletin enrolments September 2023 – preliminary results*. [Online] Available at: <https://www.gov.ie/en/publication/055810-education-statistics/> (Accessed: 08 June 2024).

Ireland. Department of Education (DE) (2023b) *DEIS schools 2023-2024*. [Online] Available at: <https://www.gov.ie/en/policy-information/4018ea-deis-delivering-equality-of-opportunity-in-schools/#deis-schools-2023-2024> (Accessed: 08 June 2024).

Ireland. Department of Education and Skills (DES) (2018) *Well-being policy statement and*

framework for practice 2018-2023. Dublin: Department of Education and Skills.

Ireland. Department of Education and Skills (DES) (2015) *Framework for junior cycle*. [Online] Available at: <https://ncca.ie/media/3249/framework-for-junior-cycle-2015-en.pdf> (Accessed: 28 April 2024).

Ireland. Department and Education and Skills (DES) (2017) *DEIS plan 2017: delivering equality of opportunity in schools*. Dublin: Department of Education and Skills.

Jigsaw (2021) *What does one good adult mean?* Available at: <https://jigsaw.ie/what-does-one-good-adult-mean/> (Accessed: 20 May 2024).

Johnson, D. W. and Johnson, R. T. (1994) *Learning together and alone: cooperative, competitive and individualistic learning*. Boston, Massachusetts: Allyn and Bacon.

Johnson, D. W. and Johnson R.T. (1999) 'Making cooperative learning work', *Theory into Practice*, 38(2), pp.67-73. doi: 10.1080/00405849909543834.

Jordan, A. (2018) 'The supporting effective teaching project: 1. factors influencing student success in inclusive elementary classrooms', *Exceptionality Education International*, 28(3), pp.10-27. doi: 10.5206/eei.v28i3.7769.

Klein, H. K. and Myers, M. D. (1999) 'A set of principles for conducting and evaluating interpretive field studies in information systems', *MIS Quarterly*, 23(1), pp.67-93.

Konstantinou-Katzi, P., Tsolaki, E., Meletiou-Mavrotheris, M. and Koutselini, M. (2013) 'Differentiation of teaching and learning mathematics: an action research study in tertiary education', *International Journal of Mathematical Education in Science and Technology*, 44 (3), pp. 332-349.

Krefting, L. (1990) 'Rigour in qualitative research: the assessment of trustworthiness', *The American Journal of Occupational Therapy*, 45(3), pp.214-222.

Levy, H. M. (2008) 'Meeting the needs of all students through differentiated instruction: helping every child reach and exceed standards', *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 81(4), pp.161-164. doi: 10.3200/TCHS.81.4.161-164.

Maxwell, J. A. (2012) *Qualitative research design: an interactive approach*. London: Sage Publications Limited.

Morse, J. M.(ed.) (1991) *Qualitative nursing research: a contemporary dialogue*. California: Sage Publications, Inc.

Morse, J. M. (2009) 'Mixing qualitative methods', *Qualitative Health Research*, 19(11), pp.1523-1524. doi: 10.1177/1049732309349360.

Munro, J. (2012) 'Effective strategies for implementing differentiated instruction', *Research Conference 2012: School Improvement: What does research tell us about effective strategies?*. Melbourne, 27 August. [Online] Available at: https://research.acer.edu.au/research_conference/RC2012/27august/14 (Accessed: 04 June 2024).

National Council for Curriculum and Assessment (NCCA) (2021) *Junior cycle wellbeing guidelines* [Online] Available at: https://ncca.ie/media/4940/updated_guidelines_2021.pdf (Accessed: 6 May 2024).

Nelis, S.M., Gilleece, L., Fitzgerald, C. and Cosgrove, J. (2021) *Beyond achievement: home, school and wellbeing findings from PISA 2018 for students in DEIS and non-DEIS schools*. Dublin: Educational Research Centre.

Nilholm, C. (2021) 'Research about inclusive education in 2020 – how can we improve our theories in order to change practice?', *European Journal of Special Needs Education*, 36(3), pp.358–370. doi: 10.1080/08856257.2020.1754547.

Petty, G. (2014) *Teaching today: a practical guide*. 5th edn. Oxford: Oxford University Press.

Pozas, M., Letzel, V. and Schneider, C. (2019) 'Teachers and differentiated instruction: exploring differentiation practices to address student diversity', *Journal of Research in Special Educational Needs*, 20(3), pp.217-230. doi: 10.1111/1471-3802.12481.

Pozas M., Letzel V., Lindner, K. T. and Schwab, S. (2021) DI (differentiated instruction) does matter! the effects of DI on secondary school students' well-being, social inclusion and academic self-concept', *Frontiers in Education*, 6(729027), pp.1-11. doi: 10.3389/educ.2021.729027

Prast, E., Van de Weijer-Bergsma, E., Kroesbergen, E. and Luit, J.E.H. (2015) 'Readiness-based differentiation in primary school mathematics: expert recommendations and teacher self-assessment', *Frontline Learning Research*, 3(2), pp.90-116. doi: 10.14786/flr.v3i2.163.

Rahman, M. S. (2017) 'The advantages and disadvantages of using qualitative and quantitative approaches and methods in language "testing and assessment" research: a literature review', *Journal of Education and Learning*, 6(1), pp.102-112. doi: 10.5539/jel.v6n1p102.

Schleicher, A. (2016) 'Teaching excellence through professional learning and policy reform: lessons from around the world', *International Summit on the Teaching Profession*. Paris: OECD Publishing.

Schofield, J. W. (2007) 'Increasing the generalizability of qualitative research', in M. Hammersley (ed.), *Educational research and evidence-based practice*. London: Sage Publications, pp.181-203.

Schön, D.A. (1991) *The reflective practitioner: how professionals think in action*. London: Temple The University of Edinburgh Reflection Toolkit.

- Schwab, S., Resch, K. and Alnahdi, G. (2021) 'Inclusion does not solely apply to students with disabilities: pre-service teachers' attitudes towards inclusive schooling of all students', *International Journal of Inclusive Education*, 28(2), pp.214-230. doi: 10.1080/13603116.2021.1938712.
- Singh, G. (2024) 'Educational leadership and professional learning in teacher education: an Indian perspective', *Educational Administration: Theory and Practice*, 30(4), pp.1871-1877. doi: 10.53555/kuey.v30i4.1774.
- Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M. and Maulana R. (2019) 'Differentiated instruction in secondary education: a systematic review of research evidence', *Frontiers in Psychology*, November, 10(2366), pp.1-23. doi: 10.3389/fpsyg.2019.02366.
- Smith, J.A. (1995) 'Semi-structured interviewing and qualitative analysis', in Smith, J.A. Harré, R. and Van Langenhovem, L. (eds.) *Rethinking methods in psychology*, pp. 9-26. London: Sage Publications Limited.
- Stone, C. A. (1998) 'The metaphor of scaffolding: its utility for the field of learning disabilities', *Journal of Learning Disabilities*, 31(4), pp.344–364. doi: 10.1177/002221949803100404.
- Teaching Council (no date) *Professional learning (cosán)*. Available at: <https://www.teachingcouncil.ie/professional-learning/cosan/> (Accessed: 13 May 2024).
- Terry, G., Hayfield, N., Clarke, V., and Braun, V. (2017) 'Thematic analysis', in Willig, C. and Stainton Rogers, W. (eds.) *The Sage handbook of qualitative research in psychology*. London: Sage Publications Limited, pp.17-37.
- Thanh, N. C. and Thanh, T. T. L. (2015) 'The interconnection between interpretivist paradigm and qualitative methods in education', *American Journal of Educational Science*, 1(2), pp. 24-27.
- Thomson, S. (2011) 'Sample size and grounded theory', *Journal of Administration and Governance (JOAAG)*, 5(1), pp.45-52. [Online] Available at: https://www.researchgate.net/publication/228513695_Sample_Size_and_Grounded_Theory (Accessed: 9 September 2023).
- Tomlinson, C. A. (2001) *How to differentiate instruction in mixed-ability classrooms*. Alexandria, Virginia: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K. Conover, L. A. and Reynolds, T. (2003) 'Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: a review of literature', *Journal for the Education of the Gifted*, 27(2-3), pp.119–145. doi: 10.1177/016235320302700203.
- Tomlinson, C. A. (2005) 'Grading and differentiation: paradox or good practice?', *Theory into Practice*, 44(3), pp.262-269.

- Tomlinson, C. A. and Imbeau, M. B. (2010) *Leading and managing a differentiated classroom*. Alexandria, Virginia: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (2014) *The differentiated classroom: responding to the needs of all learners*. 2nd edn. Alexandria, Virginia: Association for Supervision and Curriculum Development.
- Ugwu, C. N. and Eze Val, H. U. (2023) ‘Qualitative research’, *IDOSR Journal of Computer and Applied Sciences*, 8(1), pp.20-35.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO) (1994) ‘The Salamanca statement and framework for action on special needs education’, *World conference on special needs education: access and equality*. Salamanca, Spain, 7-10 June. [Online] Available at: <https://www.european-agency.org/sites/default/files/salamanca-statement-and-framework.pdf> (Accessed: 16 April 2024).
- Valiandes, S. (2015) ‘Evaluating the impact of differentiated instruction on literacy and reading in mixed ability classrooms: quality and equity dimensions of education effectiveness’, *Studies in Educational Evaluation*, June, 45, pp.17–26. doi: 10.1016/j.stueduc.2015.02.005.
- van Geel, M., Keuning, T., Frèrejean, J., Dolmans, D., van Merriënboer, J., and Visscher, A. J. (2019) ‘Capturing the complexity of differentiated instruction’, *School Effectiveness and School Improvement*, 30(1), pp.51-67. doi:10.1080/09243453.2018.1539013.
- Vygotsky, L. S. (1978) *Mind in society: the development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1986) *Thought and language*. Cambridge, Massachusetts: MIT Press.
- Waterhouse, L. (2006) ‘Multiple intelligences, the mozart effect, and emotional intelligence: a critical review’, *Educational Psychologist*, 41(4), pp.207-225. doi: 10.1207/s15326985ep4104_1.
- Westwood, P. (2013) *Inclusive and adaptive teaching*. London: Routledge.
- Whipple, K. A. (2012) Differentiated instruction: a survey study of teacher understanding and implementation in a southeast Massachusetts school district. PhD thesis. Northeastern University Boston. [Online] Available at: <http://hdl.handle.net/2047/d20002903> (Accessed: 9 June 2024).
- Whitman, G. (2023) ‘Learning styles: lack of research-based evidence’, *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, May, 96(2), pp. 1-5. doi: 10.1080/00098655.2023.2203891.
- Willis, J. W. (2007) *Foundations of qualitative research: interpretive and critical approaches*. London: Sage Publications Limited.
- Xiong, X. (2022) ‘Critical review of quantitative and qualitative research’, *3rd international conference on mental health, education, and human development (MHEHD)*. Dalian, China, 27-

29 May. [Online] Available at:
https://www.researchgate.net/publication/362103258_Critical_Review_of_Quantitative_and_Qualitative_Research (Accessed: 3 April 2024).

Appendices

Appendix 1: Letter to the Principal



11/01/2024

Dear [REDACTED],

As part of my Professional Masters in Post-Primary Education with Hibernia College, I am investigating the differentiation methodologies employed by teachers across different Junior Cycle subjects and ascertain the potential transferability of these strategies across subjects. Furthermore, the research endeavours to identify strategies recommended by teachers to enhance their inclusive practices, reduce the workload associated with differentiated instruction, and contribute to their overall mental well-being.

Classroom teachers are key stakeholders in incorporating differentiated teaching methodologies in learning and teaching to create an inclusive environment where diversity is addressed and celebrated. This enhances student learning that 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 five classroom teachers. The staff will be asked to partake in semi-structured interviews to gain insight into the project's aims. 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 be strictly 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 in 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, Mobile: [REDACTED], Email: [REDACTED]

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.

Researcher's Signature: _____ Date: _____

Principal's Signature: _____ Date: _____

Appendix 2: Research Information

Research Information Sheet

Researcher	██████████
Name of Organisation	Hibernia College Dublin
Organisation Contact Details	Block B, The Merrion Centre, Merrion Road, Dublin 4, D04 H2H4
Title of Study	Differentiated Instruction utilised in Junior Cycle subjects and strategies to enhance inclusive practices – from Teacher’s Perspective

Outline of Research Study:

Despite the extensive literature on the concept of differentiated instruction (DI) and its positive effects on student motivation and outcomes, studies have highlighted discrepancies in how teachers implement DI. While teachers may theoretically support an inclusive model of education, there is substantial evidence indicating that they encounter challenges when attempting to incorporate differentiation in their classrooms (Bondie, Dahnke and Zusho 2019). This gap between theory and practice has been associated with misconceptions teachers develop about differentiated practices, arising from the wide range of potential DI approaches, their beliefs and lack of understanding of DI (Tomlinson et al., 2003; Dixon et al., 2014; Smale-Jacobse et al., 2019). Meeting the diverse needs and abilities of students in the classroom presents a significant challenge for educators (West and West, 2016). A recent mixed-method study conducted by Pozas, Letzel-Alt, and Schwab (2023) explored the impact of DI on 233 secondary school teachers in Germany. Their findings indicated that the integration of DI indeed fosters a sense of enhanced job satisfaction among teachers. However, it also revealed that this practice contributes to elevated levels of stress among educators resulting from the ‘lack of time, support and workload associated with DI’ approaches (ibid., p.10).

Objectives of the project:

The objective of this research is to investigate the differentiation methodologies employed by teachers across different Junior Cycle subjects and ascertain the potential transferability of these strategies across subjects. Furthermore, the research strives to identify strategies recommended by teachers to enhance their inclusive practices, reduce the workload associated with differentiated instruction, contributing to their overall mental well-being.

What would I need you to do?

Your participation in this research project is greatly appreciated. This research project has received ethical approval from Hibernia College Dublin. If you agree to participate, you will participate in a short semi-structured interview with the researcher. Any information you provide about your own identity or that of the school will be anonymous and confidential. Quotes from the interview may be used and may also be published in the research, however your name and the name of the school will not be published. The interview will be audio recorded and transcribed, and a copy of the transcript will be made available to you on request. This research may be used in a publication of a thesis for Hibernia College Dublin. It may also be used in conference proceedings or used in academic articles. You are free to withdraw from the study at any time.

Purpose of this research:

The purpose of the research is to complete small-scale study which forms part of the final year of the Professional Masters in Post-Primary Education with Hibernia College Dublin.

Appendix 3: Consent form

Consent Form

Researcher	██████████
Name of Organisation	Hibernia College Dublin
Organisation Contact Details	Block B, The Merrion Centre, Merrion Road, Dublin 4, D04 H2H4
Title of Study	Differentiated Instruction utilised in Junior Cycle subjects and strategies to enhance inclusive practices – from Teachers’ Perspective
<p>Consent (to be completed by the participant)</p> <ul style="list-style-type: none"> • Have you been fully informed/ read the information sheet about this study? Yes/ No • Have you been fully informed/ read the information sheet about this study? Yes/ No • Do you understand that you are free to withdraw from this study at any time without giving a reason for withdrawing and without your withdrawal having an adverse effect for you? Yes/ No • Do you agree to take part in this study, the results of which are likely to be published or presented at a conference? Yes/ No • Have you been told that the researcher will keep a copy of this consent form? Yes/ No • Are you satisfied that any information you give to the researcher will be kept confidential? Your name and the name of the school will not appear in the research report. Yes/ No 	
<p>Participant’s Name (printed):</p>	
Participant’s Signature:	Date:
Researcher’s Signature:	Date:

Appendix 4: Interview Schedule

Interview Schedule

Name of Teacher:	JC Classes taught:	Date of interview:
Aim of research:		
Interview questions: <ol style="list-style-type: none">1. Can you describe your teaching experience and the subject(s) you currently teach?2. To what extent do you feel familiar with the concept of differentiated instruction?3. What are some of the ways the students differ from one another in your Junior Cycle classes?4. Could you share specific examples of how you differentiate instruction in your classroom? What are some of the learning and teaching strategies you use to cater to these differences?5. Do you find that your students respond positively to these differentiation strategies? How can you tell?6. Have you found any particular differentiation methods or approaches that work well across your own or multiple Junior Cycle subjects? Could you elaborate on these methods?7. How challenging is it to cater to the diverse student population in your Junior Cycle classes?8. Can you discuss any challenges in addressing diverse student abilities/ learning styles?9. What do you see as the usual challenges in implementing differentiated instruction?10. Do you feel your school supports you in using differentiated strategies? If so, could you elaborate on the support the school provides?11. What support or resources do you believe would be most beneficial for teachers aiming to improve their differentiation strategies across different Junior Cycle subjects?12. How does incorporating differentiated instruction impact your workload?13. Do you believe differentiation has an impact on your overall job satisfaction? If so, how?14. Is there anything else you would like to share about your experiences with differentiated instruction?		

Appendix 5: Interview Transcripts

Appendix 5a

Interview 2

00:00 → 00:52

Speaker 1: Can you describe your teaching experience and the subject(s) you currently teach?

Speaker 2: So my teaching background is... I'm in [redacted] I teach in [redacted] and been there this is year seven for me and before that I covered 2 maternity leaves, one in [redacted] teaching music and the other is [redacted] Both of those schools were in [redacted] and taught music there. I teach music and business now in [redacted]. And yeah, this is year seven.

00:52 → 2:42

Speaker 1: To what extent do you feel familiar with the concept of differentiated instruction?

Speaker 2: So I think differentiation is very important in all classrooms. It becomes an idea where you are not just teaching the, let's say the content, but you're trying to teach the students and how to get them engaged and interested in that content. So I suppose yeah, every class has a level of differentiation, and every class would have a level of how much you need to differentiate your content for. So I find in [redacted] there is quite a vast range of abilities and yeah. Definitely depending on the class then you would need to differentiate to greater extent over other classes, but every class... You would always have to differentiate in every class. So I have been differentiating for a long time.

2:45 → 5:27

Speaker 1: What are some of the ways the students differ from one another in your Junior Cycle classes?

Speaker 2: The difference differs from one another in your junior cycle classes at the... I suppose on the most basic level, you'd have students that learn visual, kinaesthetic, and auditory. So you'd have to be able to change, have the different methodologies that would cater for those three strands. Majority of students are visual. So both in music and business, making sure you have those visual cues for students. And often it can actually be kind of challenging in a music context to create visuals because I suppose music is sound. And so... and then trying to create different colour codes and colour charts for different... whether it's different chords or different keys on the keyboard or the different visuals of where things are. But then you would automatically when they are learning an instrument, you'd have the kinaesthetic aspect of it where they have their hands-on aspect and then the auditory where they're hearing the sound that they make. So music is kind of a nice subject in that regard that automatically kind of caters for that level of differentiation. Business on the other hand is a bit more academic but you know having the visuals of it, you are talking about a particular business, maybe their logo or their brand and how you'd colour code different things for your PowerPoint for that. And then the kinaesthetic is always a bit more challenging in business. So you would have to be able to create more like the walking debates or the group work skill and communication skills, social skills, in business, being able to get up and present projects. All of that kind of thing is a lot more of that kinaesthetic learning or differentiating in that way. And then with junior certs, the CBA is one of the only subjects in business where you have to complete the CBA as part of a group. So that learning has to start in first year to be able to prepare them for that CBA. And doing that group work skill and activity is very important there. So yeah, making sure that when you're teaching the content that you're able to cater and introduce that group work aspect in business is very important. And then you are always going to have different levels of ability then within that aspect of it too. So being able to change and you would have your higher and lower order forms of questioning to be able to cater for the students in that regard.

10:58 → 11:53

Speaker 1: Do you find that your students respond positively to these differentiation strategies and how can you tell?

Speaker 2: So I think they definitely do respond positively because I think it's in their interactions, like so you create a positive student teacher relationship in the classroom, very little disruption, students are willing to learn, they're engaged. They want to know what to do next. And I suppose you're teaching the content to their level, and again, it's the idea of teaching the student rather than the content. And yet students come into my classroom and they're ready to learn and they listen, and they want to do their best within the classroom. So I think differentiation is kind of really vital to the success of teaching really, umh.

11:54 → 13:33

Speaker 1: Have you found any particular differentiation methods or approaches that work well across your own or multiple Junior Cycle subjects? Could you elaborate on these methods?

Speaker 2: I suppose. In business that must, umh, should and could aspect work really well, umh, I definitely I use that all the time in business and I find it great. Umh, and then I can get students to self-assess and so if they complete a body of work for me, they can look at it and look at the success criteria and then see okay what level they are at. And I'd usually line it up to like the CBA features of quality. Let's say must would be in line with expectations, the should would be above expectations and the could would be exceptional. So that if I'm grading them or giving them feedback on their work, umh, they're able to look at it themselves and see well what level am I at myself? And I can check in with them then too and see what level they are at then as well. And that really works quite well. So students always know where they are in their learning journey or at what level they're at or what kind of grade that they're coming in at. And that's always very, very helpful. So that there's no real surprises within. They know the level of work that they've put into the subject. So they know what grade that they're getting.

13:34 → 15:35

Speaker 1: How challenging is it to cater to the diverse student population in your Junior Cycle classes?

Speaker 2: Yeah, it is very challenging and like every class, as I said, would have different learning needs within it. And I suppose as a teacher you're constantly learning and keeping up to date with the needs of your students and you are trying to again cater to again cater that content to the people that are within your class, so it definitely isn't the case of having your PowerPoint and going okay, here we go and one size fits all. Unfortunately not. Like there would be little tweaks that you would need to do to be able to cater for those particular students to make sure that they are able to engage with the content. So a lot of it is down to the teacher being able to keep up to date with student profiles and what the students need and listening to the students and seeing what they need and then being able to continually adapt and to be able to cater to students. It takes time. When you get a group in first year, it takes time to be able to figure them out. It could nearly be second year by the time you kind of have an aspect of, ok, this is what all of the students need within the class. And there is a lot of trial and error. So, but uh, and that's why I really advocate for having the same cohort of students from first to third year, because you can get to learn about, you know, about the students you have in the class within your first year and trial and error different things. And then when you get into your second and third year, you know what works for them and what doesn't work and what they need in order to learn.

5:28 → 10:57

Speaker 1: Could you share specific examples of how you differentiate instruction in your classroom?

Speaker 2: Yeah. So in music and business, they're two kinds of very different subjects, but in music, if we're learning a song, for example, I always make sure that we learn a song as a group or a class that it's not learning different songs for different people. And that's something that and that creates that element of inclusion where students are all learning, let's say the one piece of music. But then that song then is then differentiated for the different levels and ability, and then that's adapted to the strengths that you have within that particular class. So let's say we're taking a song. I teach everyone the song on the either the ukulele or the piano first. Umh, so that it's kind of a basis for everybody, a kind of a common approach to start with. And then from there, when everyone has that, then I'd be able to adapt it to people that may already play instruments or be a bit stronger on different instruments, whether it be a piano or sing or they play bass or baron or drums. And then I teach them how to be able to perform that particular song on those particular instruments. But then, and that would help develop the overall context of the song and the different roles that everyone would play within that song. But then on a lower level, if people that have struggle with their motor skills and aren't able to play a ukulele or a tin whistle, umh, maybe I'd look at, umh, so I've got bells in the classroom too where they can hit bells and kind of keep time when they keep, umh, play those bells. Or I've got the boomwhackers in the class too, which are like different tubes that you'd hit, and they'd give different notes. And again that's kind of a lower umh form of being able to be included within the song where they're still part of the song, but they're just not doing maybe something as complicated. But that would be kind of a general aspect of how I'd go about differentiating a piece of music in the classroom. Then in umh business, I use this format that I learned at a CPD I did before where it divides the content. So you look at your learning intentions for the class and then based on that learning intention you divide that into three kind of areas, which we'd call must, should and could. So your success criteria for that learning intention will be looking at must, what they need to be able to do? Umh, could. Umh, sorry. Should would then be, let's say, being able to explore and elaborate on the ideas and the content within that learning intention. And then the could would be the extension activity or maybe it's the action verb of the learning intention where it's like you evaluate, you analyse where students can do their own independent research and find more data or more information about that particular content. So an example maybe would be if I'm teaching marketing, and the learning intention might be to be able to explore the marketing mix for a particular product. So the must or the success criteria, umh, the must aspect of it would be that they need to be able to name like the lower order form of it. They need to be able to name let's say the four Ps of the marketing mix and maybe have some basic concepts to be able to explain a little bit. Uh, kind of basic ideas around the four pieces, the product price for this promotion the should would be that they can actually elaborate on those and give like this specific examples of what would be in the marketing mix. So for example the product would include say the branding, the product life cycle, the USP and then the pricing strategies for the price and different ideas around promotion. And the place of the channels of distribution and that they need to be able to do that, but then the final aspect could would be where students would be able to go deeper within it and they could apply that marketing mix to particular businesses and look at how different businesses use that marketing mix within it and students have their own independent research where they can go on that and then they could also maybe compare different businesses that use the marketing mix as well. So that would kind of be how you maybe differentiate for the different levels within the classroom then as well in a business and music class.

15:36 → 17:24

Speaker 1: Can you discuss any challenges in addressing diverse student abilities/ learning styles?

Speaker 2: Umh, yeah, the challenges are definitely that umh. I suppose every student is different and you can try different things, but you know, like I said earlier about first years where you have to try different approaches or different methods. Sometimes they work and sometimes they don't work, but then... You have to be able to, I suppose that that kind of idea of teaching reflect that of reflective practise as a teacher reflecting on, ok, well that worked, I can use that approach again and apply that or if something doesn't work then it then being able to reflect on that and go: why didn't that work and what didn't work for that student that time and then knowing for future that, that doesn't work for that particular student. And then keeping up to date with the... umh... with the student profiles as well. That and then every day is different too. So sometimes students could come in and they're ready, they're engaged, they're willing to learn. In other days, it's human nature, they might be tired, or something might be going on in their lives and they're not kind of in the headspace to be able to learn as well. So you have to be able to adapt to that as well. So it's all about really adaptability and seeing what works and what doesn't work for the particular students.

17:25 → 19:52

Speaker 1: What do you see as the common challenges in implementing differentiated instruction?

Speaker 2: Uh, I actually find... Let's say it's the middle cohort of students. So let's say if I'm in a business classroom, like if I'm saying OK, the learning intentions are this, the success criteria, you have your must, should and could. I find that the most students will be able to... yeah...

get to know what they need to know from it and be able to have that kind of lower order level of knowledge. And then you have the students that are really good and are able to do their own independent research and kind of plough ahead and really engage with that comparison or the evaluation analysis. All of those kind of action verbs. But it's the middle cohort that I find difficult where a lot of the time they, I suppose, they look for the... they're well able to do that extra bit work they know the basic level the most, but they have to be pushed to get the middle the aspect of it and if they feel that there's an easy way out, they often take it. So it's getting them to kind of keep pushing on for them to keep improving and to engage with the with the should. Or the middle aspect of the learning or the success criteria and keeping on top of those students. Umh, so those are the ones that you kind of need to target all the time and continuously check their homework and continuously kind of keep pushing because if you take the foot off the pedal a little bit with those students, they'll fall into just doing what the basic level are. So they constantly have to be definitely pushed to make sure that they're meeting their own potential. And that's what I find most challenging.

19:26 → 21:37

Speaker 1: Do you feel your school supports you in using differentiated strategies? If so, could you elaborate on the support the school provides.

Speaker 2: Yeah, I think the school is very good, very aware of the different needs of the students and the level that the students need within the classroom. So there is a really great department there to help with the needs of the students, what works for them and what doesn't work for them. So the supports are there. I suppose maybe an area that could be improved across the school would be looking at common approaches of differentiation. So that's what

works for one teacher. Well, obviously what works for one teacher may not work for another teacher, but for the students it may be a common level so that when students go into a classroom, they knew what was the requirement for that particular class, or how they differentiate in every classroom. It would make things a bit easier rather than it being different for every teacher and what every teacher needs. Maybe that could be something that could be support within the school. But in general, in terms of the actual specific students, there's every resource available for the students to help them learn and help them engage in their studies so the students are very well supported.

21:38 -> 23:48

Speaker 1: What support or resources do you believe would be most beneficial for teachers aiming to improve their differentiation strategies across different Junior Cycle subjects?
Speaker 2: If there was maybe a common level of differentiation across the board that would help benefit the students so that it's they're using the same methodologies in every class, and then just applying it to the different content of different subjects. That might help the students to be maybe a bit more... to know what's required across the different subjects. And again, it's all about being able to know the students within the class or for the teachers to be able to understand the students. I find music is great in that sense because it's a little bit, umm, because it's not as academic. There's a bit more time to be able to get to know the students a little bit better. Or when you're preparing for practical exams, you're kind of dealing with students on a bit more of an individual basis, which you really get to know the students very well in music and help build that teacher student relationship. And when you have a strong relationship with the students, they kind of get on board a lot more with you and follow your direction and helping them to improve and get the best grade for them. And giving them specific instructions for that particular student and how to improve. Umm, but I think, yeah, I think if there was maybe a bit more of a common approach to differentiation across the school, that would help students a bit more.

23:49 -> 25:46

Speaker 1: How does incorporating differentiated instruction impact your workload?
Speaker 2: It definitely increases the workload, but you see the benefits of it. Umm, so you know you have happier students, you're more engaged students, you have students that are happy and have a smile on their face, and they walk into their into your classroom. Uh, you have very little behaviour issues and very little classroom management issues. Like the students are there, all you have to do is just get up and teach them. And you're ready to go and umm you know, it creates a much better learning environment for the students. So yeah, it's a much bigger workload, but the benefits of it are fantastic that you have, yeah, students that are happier and students that are wanting to learn. So I suppose personally I don't mind that extra workload when you can see the benefit of it, and you can see how important it is to those particular students. But you're always building a bank of resources then too, so umm, you're always building, you know. So over time, you always have this kind of umm, yeah, I suppose, bank or resources that you can pull from and can try different things. It helps improve your experience as well, and you know what works and what doesn't work. And the more you try out, the more that you keep learning as a teacher then too about what How students learn and what helps students learn and what's the most effective way of teaching students so, yeah, it keeps you on your toes and keeps you working, but definitely the benefits outweigh the workload.

25:47 -> 26:27

Speaker 1: Do you believe differentiation has an impact on your overall job satisfaction? If so, how?
Speaker 2: 100% impacts job satisfaction. You're a happier teacher, happier students. Everyone is willing to learn. Everyone's engaged, everyone's working, and everyone's happy to learn. Yeah, and yeah, you know, and you can see the progress in students. Students are progressing. And yeah, it's brilliant. It's great.

26:28 -> 28:59

Speaker 1: Is there anything else you'd like to share about your experiences with differentiated instruction?
Speaker 2: No, umm, I think in a general day-to-day classroom, yeah, it's so important to differentiate for the students and being able to kind of give nearly individual feedback to students and tell them what they need to improve on. It can be quite time consuming, but the benefits outweigh the workload of it. A hard part, maybe a challenge that I didn't talk about would be, they sometimes having the summative assessments in the school like the week 10, 20, 30 exams where you can see the student is progressing really well and that they're doing a great job and for them they're doing brilliant. But then you have to give a summative assessment and they might get maybe 30, 40, 50 percent or something like that. But for them, that's brilliant. But it doesn't highlight, or it doesn't show, let's say, the work that they've actually been putting in over the period of time. Unless you know you gathered the data over a period of time or years where you can see them getting 40, then fifty, then 60. I suppose that's kind of maybe one of a challenge within it and an equally sometimes the summative assessments then to you where you've got students that are maybe getting 80 and 90s in a test over a period of time. Then because they find that they're at the level, they can maybe drop off over the years as well and they might not be inclined to keep pushing themselves. So it's up to the teacher then to make sure that they're keep challenging the students and pushing them on and umm getting the best out of them. But it can be a challenge though because I remember having students before where they're getting in the 90s and they're getting distinctions in their junior cert. And at the same time it was very easy for them to do that. So the challenge is actually trying to keep them engaged and to keep them pushed, uh, to meet their potential while equally not going into trying to teach them the leaving cert course, even though they're able for it, or they're able to develop it. So it's just trying to think of different ways to keep pushing them and challenge them, even though they're already at that high level. That can often be a challenge too, but that's what makes your job fun and enjoyable too. And being able to cater for the students that want to learn and need to progress all the way up along. But equally the students that are at a high level already and trying to find ways of challenging them to make sure that they're meeting their potential and that's what it's all about really is just for students to try and meet their potential or whatever level that they're at. But the more you differentiate the happier the student and the more the students are learning and the better success you have as a teacher, I suppose.

29:01 -> 29:23

Speaker 1: Thank you very much [REDACTED] for sharing your views and experience regarding differentiated instruction.
Speaker 2: My pleasure.

Appendix 5b

Interview 3

00:00 -> 00:23

Speaker 1: Can you describe your teaching experience and the subject(s) you currently teach?
Speaker 2: I'm teaching three years in [REDACTED] and my subjects are chemistry, biology, and junior cert science with the hope of being a qualified teacher in leaving cert maths shortly enough too.

00:24 -> 1:32

Speaker 1: To what extent do you feel familiar with the concept of differentiated instruction?
Speaker 2: While given that I'm only three years qualified differentiation was vital in my master's or my PME when I was learning to be a teacher. We were instructed and you would have failed the inspection if differentiation hadn't been included because from the last three years of experience, I can see in any classroom that no student is the same whether that is their abilities of learning, if they have additional needs or if they just learn in different ways. So differentiation is really, really important with the terms of like my methodology is, how I question students, how I explain different things. Some students will be... umm... I'll tell them that we did this before and figure it out, other students I might give them instructions.

1:33 -> 2:01

Speaker 1: What are some of the ways the students differ from one another in your Junior Cycle classes?
Speaker 2: Well, for sure there is all abilities within any one classroom. Students of the higher order questions and higher order ability and students of the lower order questions and of lower order ability. So it is really important that you know you differentiate between and are able to include all shoots in every classroom activity.

2:02 -> 4:15

Speaker 1: Could you share specific examples of how you differentiate instruction in your classroom?
Speaker 2: So differentiating instructions... umm. For example some students I'll say well these are the equipment you need and I need you to figure out the methodology, where other students I would give them access to the methodology on Google Classroom and no student is going to know well why do I have to figure it out and why students get told what to do because you don't want to make them be embarrassed or anything like that, so that's just one simple example. Another thing would be if I'm given out any sort of questions or any sort of procedures that have to be filled in. For certain students of lower order ability I might leave blanks that they have to fill in, whereas other higher capable students have to fill in the whole thing and they would be instructed to do so. So my methodology varies. I do a lot of oral questioning throughout my teaching and when I'm kind of asking questions orally the difficulty of the questions will vary, depending on the students I am asking the question to. It does allow all students to get an experience of communication skills because the students by from first to sixth year are so used to me asking them questions that they don't blink twice with it. And the physical activities that I might differentiate between is the difficulty of the experiments I might do. If I think students are able for it, I'll say well you guys could do this experiment and I give them the equipment well but I'm not telling you how to do it, figure it out. Whereas other students I might say to some, well I feel you could do this experiment. But obviously I'm not saying, I would never put them down so you can't do this when you're not able for it. Rather, well I think it could be this one is the best suit you.

4:16 -> 6:28

Speaker 1: Do you find that your students respond positively to these differentiation strategies and how can you tell?
Speaker 2: Ohm, I do feel students respond positively because I feel like they don't know I'm actually doing the differentiation it's really, really important for students that do have additional needs that is not being made, umm, like really obvious in a classroom environment that they have these additional needs, and they have to learn differently to everybody else. Because for teenagers the most important or key component of learning is they learn and feel included. So for me differentiation is vital in class, and it has to be done sneaky and kind of without it being like obvious to the other students that a student with additional needs has to learn in a different way. I can tell they respond positively because I've built up a good rapport with my students that if students feel I'm doing something that isn't a benefit to them or doesn't work for them, to be honest with you, they'll openly tell me. So that's kind of how I can tell. Whereas different strategies, while I'm thinking to them while they may think, you know, I do a different methodology in the classroom to vary it, it's actually different strategies allowing for differentiation and different learning abilities of different students in the classroom.

6:29 -> 8:44

Speaker 1: Have you found any particular differentiation methods or approaches that work well across your own or multiple Junior Cycle subjects? Could you elaborate on these methods?
Speaker 2:

8:47 -> 9:51

Speaker 1: How challenging is it to cater to the diverse student population in your Junior Cycle classes?
Speaker 2: Umm, given that I don't have a massive amount of experience yet, I am only qualified 3 years I do find it really really difficult and I find it difficult that I like to change your methodology within the classroom all the time to ensure that everyone is learning to the best of their abilities you know if a person is a visual learner a person learns by you know notes it's really hard specially if it's junior cycle because well you know people tell you classes shouldn't be note heavy and I do agree with that because you know you are including for everybody. Students do need to have notes and do need to have some sort of structure to their learning. So I do find it very hard to like to be able to cater for the diverse population in any one classroom. But like with experience, I am learning, and I am learning what methodologies work for certain classes, it may not work for other classes, depending on what students are sitting in front of you.

9:52 -> 11:17

Speaker 1: Can you discuss any challenges in addressing diverse student abilities/ learning styles?
Speaker 2: Umm, I did find it really, really hard initially kind of you know for students, say I have a fifth year group, and even, not even my fifth years, if you look at even my third year groups, I have one particular student who's absolutely phenomenal at science and like a lot of students that are, you know say average at science, and maybe a couple of really weak, and I find it sometimes I do find it quite challenging to be able to cater for that really, really weak student and that really, really high achiever students while still progressing with the course and still bringing everyone along at the same rate. I do definitely find that challenging, but I am learning with experience different techniques that can benefit from it. And like liaising

with the rest of the department, one person could say well, I actually use this for this student that was really struggling with science, or I used this, and you know between us we do figure out different techniques, and the main thing is through experience.

11:20 -> 12:02

Speaker 1: What do you see as the common challenges in implementing differentiated instruction?

Speaker 2: A challenge I definitely find is, I'm not very good with technology, and technology has a wide variety of different different techniques that you can use different applications, you can use within the classroom, and I just find technology is a weak spot for me as a person or as an individual. But I definitely need some sort of like improvements for myself in it for being able to use it in the classroom a bit more, especially when differentiating methodology and differentiating questionnaires and different programmes that we might use within the class.

12:04 -> 12:58

Speaker 1: Do you feel your school supports you in using differentiated strategies? If so, could you elaborate on the support the school provides.

Speaker 2: Right yeah, I do strongly feel this school supports us they did have a teach meet where we actually met as staff, we got to share different methodologies with each other that worked for us and benefited us. And then if like me you weren't good at technology someone say well I used this and they actually show you how to use it, rather than just saying they used it because a lot of time with technology, I'm not very good at this and I need someone to physically show me how to do it or how to work it so that I could make it a benefit to my own classroom. And management are really on board with the likes of that teach meet. They are really on board with us, you know, observing others and looking at each other's teaching techniques, not only if when you are a student teacher but overall.

12:59 -> 14:15

Speaker 1: What support or resources do you believe would be most beneficial for teachers aiming to improve their differentiation strategies across different Junior Cycle subjects?

Speaker 2: I'm lucky enough that my school is a device school but I would definitely say that have an accessibility to devices if you're not a device school because there's so much like activities and different programmes and different apps and everything that can be used online utilised for learning and enhance learning of students. Like I used the same programme for digestive system for both second years and fifth year and got equal enjoyment. Now you could see by the students when they were using in second year, they were just trying to figure out how to put it together, it was kind of like a jigsaw puzzle, where in fifth year, they're actually saying okay well the heart has to have oxygenated blood and if the blue circles mean oxygenated well that has to pump that direction. They were kind of used not as a jigsaw but actually using the biology behind it and what each like piece of particles represented.

14:17 -> 15:02

Speaker 1: How does incorporating differentiated instruction impact your workload?

Speaker 2: Now, without hesitation it does take a huge amount of work to be able to you know create questionnaires that are differentiated create within one methodology different types of techniques that can be used depending on the students in front of you, being able to ensure that all students can actively participate. It is a huge workload without hesitation now. It is vital because all students will always have additional, not all students but a lot of

students will always have additional needs that have to be catered for in the classroom so unfortunately it is a huge workload, but it is something that will have to do.

15:05 -> 19:33

Speaker 1: Do you believe differentiation has an impact on your overall job satisfaction? If so, how?

Speaker 2: Yes, because for me I aim and I love seeing when the student is struggling with something and they get to that point where you can see like a light bulb almost go off in their head, like oh yeah okay, that makes sense now. But differentiation allows to do that so if a student it takes longer to learn something or can't learn a way another student can, differentiation allows you to cater for that student's learning abilities, so that that light bulb would say go in their head and they will get it even if it takes them a different technique to get it. They'll still get that point. And that alone for me means a job well done regards what techniques had to be done or used for that student to have that light bulb moment.

19:36 -> 20:10

Speaker 1: Is there anything else you'd like to share about your experiences with differentiated instruction?

Speaker 2: I do feel like it is a huge workload, but it is really satisfactory to see students sitting in front of you and see students being able to achieve their best regardless of what their academic needs are in comparison to other students it's really really satisfactory to see students being able to achieve, ohm, individual goals regardless if their best is a merit or a distinction. It's really important and really satisfactory irrespective of the workload for students to get to their best point.

20:12 -> 20:34

Speaker 1: I really appreciate that you were willing to share your views and experience regarding differentiated instruction.

Speaker 2: I am glad I could help.

Appendix 5c

Interview 5

Speaker 1 00:00:01 - 00:00:07

Can you describe your teaching experience and the subjects you currently teach?

Speaker 2 00:00:09 - 00:01:35

I currently teach English and History and I also do Additional Tuition hours. I have been teaching for the last four years and I suppose with over the last few years of experience I've had the privilege to teach at different periods and themes, students and I teach a lot of junior cycle. So primarily in history I teach junior cycles. So my current teaching responsibilities focus on delivering, engage in lessons on topics such as ancient civilizations, world wars and revolutions, so I'm just about to go into for comment from the Renaissance into the revolutions now at this time of year with my first years, and then as an English teacher, I bring a passion for literature and language to my junior cycle classes and so does my senior cycle classes, and with several years the last few years of experience I've taught and various genres of literatures, writing skills, critical analysis and techniques to the students. So currently, I'm guiding them through exploring some of their revision and that after the coming up to their mocks both for junior cycle and a senior cycle. So and then a lot of it is revolving around verbal communication now as well and trying to improve their writing skills and discussions.

Speaker 1 00:01:37 - 00:01:41

To what extent do you feel familiar with the concept of differentiated instructions?

Speaker 2 00:01:43 - 00:02:55

Differentiated instruction is a concept that I'm quite familiar with and have incorporated into my teaching practise, and it involves tailoring my lessons to meet the diverse needs, interests, and abilities then the students in the classroom. So it's embracing the concept of differentiated instruction to quite a significant extent. So you have to cater for many people, and it is student centred. So we do this by making sure that you understand what students are in your classroom and ensure that you're up to date with any personal profiles that may be there and available in any SEN folders or files. And to make sure that you're catering for everybody within the room. So it recognizes the individual strengths and challenges of each student and try to adjust my teaching approaches then accordingly. So there's no class that is the same even when I have multiple classes doing the same subject in the same year. So it's to support their learning journey effectively and to make sure that each student is living up to their potential, that they are comfortable in the classroom, that they're confident and somewhere safe for them to be able to learn and grow within the classroom.

Speaker 1 00:02:58 - 00:03:05

What are some of the ways the students differ from one another in your junior cycle classes?

Speaker 2 00:03:07 - 00:05:42

So students in my junior cycle history classes, let's say, differ from one another in various ways. OK, so some excel in analysing primary sources so they can some people can find that really, really difficult. They could be given an extract from a diary or a picture that they have to look at and then they have to infer the knowledge from that and be able to answer questions. Certainly it is a difficulty for some students and then others try when it comes to that. And then others then struggle with then the historical context, so they find it hard to

place where they are in history and it's important to keep grounding them throughout in order to make sure that they know what the cause and effect throughout history, and if you understand that really, really well, they can undertake any topic and understand it. So students have diverse interests as well as backgrounds and learning styles. So I even have one student that is a huge history buff and has actually gone to see the Michelangelo's work. Going to Rome this year and they can't wait. He comes back and he shares all of those experiences with them. So it's huge, different learning kind of styles influences their engagement and comprehension of the historical content. So really depends on how I teach at times as that what level of engagement will be there. Within the English classroom then students in my junior cycle classes it's evident their reading abilities can vary hugely, their writing skills and their levels of literacy analysis. So to be able to take a piece and analyse it, comprehend it and to be able to actually give a critical answer to that actually again. Some students strive when it comes then to creative writing tasks, absolutely love it. Create poetry, create stories, do comic strips, anything like that and their inner element. But other students then struggle with literacy interpretation. Additionally cultural backgrounds and personal experience really can shape their perspective on literature and language as well. Sometimes if somebody comes into the schools later on or they only move to Ireland later on some of the cultural contexts that we take for granted may not be there and you cannot assume that every student has the same background. So you have to constantly be checking in, reflecting, and assessing their prior knowledge before moving on.

Speaker 1 00:05:45 - 00:05:51

Could you share specific examples of how you differentiate instruction in your classroom? And what are some of the learning and teaching strategies you use to cater to these differences?

Speaker 2 00:05:53 - 00:09:59

So to differentiate instruction in let's say the history classroom I might provide different kind of assignments based on skill levels or offer choice on topics for research projects or I might utilise multimedia resources. So I use a lot of it could be videos or contexts like that. We're very lucky in our school we are a technology and iPad-based school, so I heavily rely on Google Classroom to post everything I have. I'll put up all of my PowerPoints there that will have integrated pictures and they'll have videos as well to try and explain and expand. And then I'll always add an additional slide at the end to for those that want to go on and learn more about it and it'll have different things in there, either newspaper articles, videos again or that or just areas or websites that they can go, and they can do more research on the topic that they find exciting. So I can also assign different reading materials that have various complex I suppose or different levels to provide additional support. The students wouldn't be aware necessarily of the different levels, they'll usually be colour coordinated or I will pick something like answer 2 yellow, 2 purple, 2 pink and in those 2 yellows, 2 purple, 2 pink I'd have various levels in there so that then it'll be up to the students what they take from it and if they really want to challenge themselves. Each colour will kind of have a different skill set behind it so one might be critically analyzing it, one might be just interpreting data and that. So then I suppose it just provides choice for the student and again they would be unaware of what would be happening so it wouldn't be evident that I'd be giving certain students easier ones and other students more difficult ones. With English it can involve offering alternative texts so sometimes there can be short stories and if it'll be up to them which one they pick. So sometimes I'll get a certain amount of people to do one story, a certain amount of people to do another. They can put their hands and they can choose and then they'll provide the feedback of that so in class then everybody will get the benefit from them having read and

answered questions. So providing scaffolding for writing assignments through the graphic organisers or sentence starters. So one of the things that I would have done was if we're in English and we were tackling Blood Brothers which is a lovely drama and play that they absolutely adore, I'd start off with getting them to pick six of their key moments, they'll draw them out in the comic strips, they're the first one to do a web and they'll plan it out. All the key moments then they'll pick six out of that, they'll put them onto a comic strip with just an information, a sentence or two underneath as to what's happening. Then along with sentence starters they'll have to write a paragraph for each one using PIE so Point, Illustrate, Explain. So they'll have wrote out each paragraph then and then at the end we'll introduce an introduction and a conclusion and with over a short space of time the students will have actually written an essay without being told at the start that this is what they're actually going to end up doing. So doing little steps like that it can be really really helpful and then I might offer them as well I have versions of text so Audible is fantastic or incorporates and visual aids for students who benefit from that so I'll always have a PowerPoint up and then I might speak as well so that'll help there.

Speaker 1: 00:10:02 – 00:10:05

What are some of the learning and teaching strategies you use to cater to these differences?

Speaker 2: 00:10:07 – 00:10:46

So some of the learning and teaching strategies I use to cater to these differences include cooperative learning activities, differentiated assignments, flexible groupings, and assessments to gauge then how they're actually getting on. So I can also, I use group work a lot and project-based tasks when I can, peer feedback and incorporate technology then as well for the diverse learners. These strategies help to create an inclusive classroom I believe where all students then they can feel valued and supported.

Speaker 1: 00:10:50 – 00:10:56

Do you find that your students respond positively to these differentiation strategies? How can you tell?

Speaker 2: 00:10:58 – 00:11:12

So I suppose generally my students respond positively to these differentiation strategies because I can tell by observing increased engagement in class or discussions. There's improved performance when it comes to assessment it's a very, very quick, and easy way to do it and when I do reflective activities or one-to-one discussions, I can hear that they are actively engaged. I am always monitoring student participation so even if they're working in even if I am not at the centre, I'm always analysing their work and trying to gauge feedback. I can gauge the effectiveness of differentiation by including the positive responses from them and the confidence that they'd have and their active participation in class. They can be very, very hands-up and happy with that and that can give me a clearer engagement that they're happy with the activities that I've chosen to do within the classroom, and I take their feedback very seriously as well. I'd often ask within a class what do you enjoy, what do you like doing, did you enjoy that task, was that fun, did you get a lot from it and if it didn't then then I know I need to re-evaluate it.

Speaker 1: 00:12:14 – 00:12:19

Speaker 1: 00:16:04 – 00:16:07

What do you see as a common challenge in implementing differentiated instruction?

Speaker 2: 00:16:10 – 00:17:23

Common challenges in implementing it, differentiated instruction, time constraints for planning, assessment, limited resources, a time when you're under resistance to change from both the students and other people as well so it can be difficult to get everything you need. You need to be flexible; you need to be constantly having ongoing reflections and effectively implementing them then as well in the classroom and recognising when something works and when something doesn't work or when something may just need some tweaking. So it's really about the time that goes into the planning before and after, the expectations then as well that you have of your students and the students need and available resources that are there. So in order to be able to provide that personalised support and to get that feedback to each student while maintaining the demands of a classroom to make sure that they know as well where they're at and how they can improve so it's not only me constantly reflecting on my practice but I need them to be able to see where they are and in order to do that I need to be able to have time to provide that feedback which can be just as important as covering the curriculum.

Speaker 1: 00:17:27 – 00:17:27

Do you feel your school supports you in using differentiated strategies? If so, could you elaborate on the support the school provides?

Speaker 2: 00:17:30 – 00:19:17

Yes I do, I feel supported by the school. The school provides professional development opportunities, they have access to different materials, there's collaboration time to talk about best practices, we do have workshops, we discuss different strategies that we have, there's additional tuition then available to students who either identified as in a need of additional support or request additional support. The level of support then is then determined on the individual basis. The school's whole school planning and DASH targets include such resources where identification of needs is incorporated into its planning. One example of this is carrying out the STAR reader for both English and Maths. Students who are identified with needs attention or urgent intervention were given additional resource classes. Another set of STAR reader for English and Maths will be carried out then before the end of the year and the results will be measurable as to the improvements due to the interventions or where else supports could be offered. So on differentiated instruction then, offering professional development then, there's mentorship then programs as well which were hit in the school and access to additional education resources with a huge set of SEN teachers within the school and then there's learning support classrooms then as well. Just recently then we also incorporated training for L2LP students and that was due to a request of teachers where the need was identified for the school and that was incorporated which was fantastic.

Speaker 1: 00:19:20 – 00:19:24

What support or resources do you believe would be most beneficial for teachers aiming to improve their differentiation strategies across different Junior Cycle subjects?

Speaker 2: 00:19:26 – 00:20:27

So support and resources that would be most beneficial for improving differentiation strategies, curriculum guides I suppose, sample lesson plans, model assignments especially when it comes to CBAs, there's such a new idea it would be very beneficial for all teachers,

Have you found any particular differentiation methods or approaches that work well across your own or multiple Junior Cycle subjects? Could you elaborate on these methods?

Speaker 2: 00:12:23 – 00:13:56

So across my history classes and other junior sized subjects I found that providing choice in assignments, offering scaffolding for complex tasks, and incorporating hands-on activities, kind of empower students to help them take ownership, cater to the diverse learner. I had such as a history fair to explore the renaissance, so each group was given a topic, art, literature, science, and inventions. Each group then had to design and create a booth to display it in a class fair. The students then won based on most creative and most informative. Students had to go around and find out information based on their reflective questions that was up on the board at the time and they had to do a write-up, a reflection piece over midterm and they had to gather the information. So it had everything from peer-to-peer learning, critical thinking, working groups, gathering and research and information and reflective practices. Something like this it would be very, very easy to incorporate at throughout. You could easily do it in a geography classroom, music, any of the more practical classrooms, science definitely and that and similarly then for any English classes then, reading materials, multimedia sources, providing opportunities for peer collaboration. They all end up engaging the students, they all promote a deeper understanding of literacy concepts across the junior cycle subjects that can be used throughout cross-curricular.

Speaker 1: 00:14:01 – 00:14:04

How challenging is it to cater to diverse student population in your junior cycle subjects?

Speaker 2: 00:14:06 – 00:14:49

So there is a huge diverse student population in my junior cycle classes. It can be very challenging especially in balancing the needs of students with different academic abilities, language proficiencies and prior knowledge of historical context. As I said before I actually taught a history class before where somebody didn't know who Saint Patrick was, something that we'd almost take for granted as it's done in primary schools, but they did not go to primary school in Ireland, so they didn't know anything about it. Addressing their needs in an English classroom, it's careful planning and differentiation of instruction to ensure that they all do it and constantly assessing their prior knowledge.

Speaker 1: 00:14:53 – 00:14:57

Can you discuss any challenges in addressing diverse student abilities/ learning styles?

Speaker 2: 00:15:00 – 00:15:59

Challenges in addressing diverse student abilities and learning styles may include basically identifying the needs okay so unless they already have a profile done up or they've been identified as they've come into school especially in the first years that may not be the case until almost closer to the end of first year. So it's getting to know your student, you need to know where students are struggling, and you need to make sure that you're also challenging the high achievers in the classroom as well and understanding the difference of may be somebody being bored and acting out and needing that extra challenge or somebody being acting out because they need additional support in their learning environment. Balancing that needs, varying reading levels in the English classroom, writing skills and accommodating the different learning styles and preferences while still being able to cover the curriculum and both in the English and history there's a huge curriculum and it can have its own set of challenges throughout so it can be quite difficult.

new and old. Ongoing professional development then that's tailored to the teachers and students as I said L2LP training was very beneficial. Additional support and resources for each subject in this shared drive would be huge with differentiated instruction materials, assessment tools and peer collaboration opportunities to enhance teachers ability to implement them I suppose both in the English and history classroom and across the junior cycle subjects.

Speaker 1: 00:20:29 – 00:20:32

How does incorporating differentiated instruction impact your workload?

Speaker 2: 00:20:35 – 00:21:08

Incorporating it does require additional time and effort and planning assessment and ongoing monitoring of the students however the benefits of improved student engagement achievement and overall justified investment of time and effort. The workload to some extent it is increased but the positive impact it has on the students learning and engagement makes it worthwhile. It encourages careful planning flexibility and ongoing reflection to effectively meet the diverse needs of the students in the classroom and that can only be a good thing.

Speaker 1: 00:21:12 – 00:21:16

Do you believe differentiation has an impact on your overall job satisfaction? If so, how?

Speaker 2: 00:21:18 – 00:21:43

Yes, I believe the differentiation has a positive impact on my overall job satisfaction. Seeing students actively engaged in learning, making progress, and achieving success through differentiation is very rewarding and fulfilling. It absolutely enhances my job satisfaction as a teacher. It allows me to create supportive and inclusive learning environment where all students have the opportunity to succeed and grow academically and personally.

Speaker 1: 00:21:47 – 00:21:51

Is there anything else you'd like to share about your experiences regarding differentiation approaches?

Speaker 2: 00:21:52 – 00:22:28

In my experience with differentiated instruction I've learned it's been flexible, creative and a commitment to meeting those diverse needs. You have to be committed, they're essential for effective teaching and learning in the classroom. It's a dynamic and evolving process that requires ongoing reflection, collaboration, and adaptation to meet the needs. It's a journey to discover and growth for all the teachers involved and the students. I'm continually inspired by the progress and achievements of my students through the differentiated instructions and how they can feel included and seen and safe within the classroom.

Speaker 1: 00:22:32 – 00:22:45

Thank you very much for sharing your knowledge and experiences regarding DI and through that contributing to my research. I really appreciate it.

Speaker 2: 00:22:47 – 00:22:50

You are very welcome.

Appendix 6:

Table 1: Thematic Table

Themes	Codes	Subcodes	Quotes
Learning environment	Student-teacher rapport	Connection Trust Teacher role	<p>you create a positive student teacher relationship</p> <p>When you have a strong relationship with the students, they get on board a lot more with you</p> <p>What works for that pupil and what doesn't work, you can only know that by talking to them and building that relationship and giving them to trust you.</p> <p>I've built up a good rapport with my students that if students feel I'm doing something that isn't a benefit to them or doesn't work for them, to be honest with you, they'll openly tell me.</p>
	Knowing needs, interests		<p>I am always monitoring student participation [...], I'm always analysing their work and trying to gauge feedback. I can gauge the effectiveness of differentiation by including the positive responses from them [...] and their active participation.</p>
	Discrete differentiation	Holistic support	<p>It's really important for students with additional needs that differentiation isn't made obvious in the classroom environment. They don't realise I am adjusting tasks [...] modifications are subtle.</p> <p>and it has to be done sneakily and kind of without it being like obvious to the other students that a student with additional needs has to learn in a different way</p>
	Supportive atmosphere	stable, respectful, safe	<p>increased engagement in class or discussions.</p> <p>you've more engaged students, you've students that are happy and have a smile on their face when they walk into your classroom. You've little behaviour issues and very little classroom management issues.</p> <p>So it's to support their learning journey effectively and to make sure that each student is living up to their potential, that they are comfortable in the classroom, that they're confident and somewhere safe for them to be able to learn and grow within the classroom</p>
Instructional practices	adaptability	Flexible Continuous assessment	<p>I am always monitoring student participation [...], I'm always analysing their work and trying to gauge feedback. I can gauge the effectiveness of differentiation by including the positive responses from them [...] and their active participation.</p> <p>You need to be flexible; you need to be constantly having ongoing</p>

			<p>reflections [...] recognising when something works and when something doesn't work or when something may just need some tweaking</p> <p>So you have to constantly be checking in, reflecting, and assessing their prior knowledge before moving on.</p>
	Student voice	Student feedback	<p>If students feel I'm doing something that doesn't work for them, they'll openly tell me.'</p>
Instructional strategies	Cooperative engagement	Pair work Group work Ability and interest	<p>'put them in groups with students who have maybe more of an understanding or even more of an interest in Irish</p> <p>'focused pair work helps a lot of the students as long as the pair is right</p> <p>Or they can work together and in pairs and they can decipher the vocab themselves</p>
	Technology	Games, worksheets, quizzes, ICT, tablet, choices	<p>I incorporate technology for the diverse learners</p> <p>give students the opportunity to use their tablets</p> <p>A lot of the students engage well with games online and quizzes</p> <p>All students have tablets in class. So, I tend to try to integrate technology as much as possible</p>
	Strategic questioning	Student ability	<p>I do a lot of oral questioning throughout my teaching and when I'm kind of asking questions orally the difficulty of the questions will vary, depending on the students I am asking the question to</p> <p>with questioning for higher and lower order learners as well, using open and closed questions</p>
	Scaffolding		<p>scaffolding and forming the basis of sentences would be very important. So another thing that I would do a lot is I would jumble up a sentence.</p> <p>if I think students are able for it, I'll say well you guys could do this experiment and I give them the equipment well but I'm not telling you how to do it, figure it out.</p> <p>For example some students I'll say well these are the equipment you need and I need you to figure out the methodology; where other students I would give them access to the methodology on Google Classroom</p>
	Learning preferences	Choices, multimodal tools	<p>So some of them could be artistic, some of them could be written, some of them could be oral, some of them could be working with technology;</p>

			<p>some of them could be making a presentation</p> <p>Different resources for all these different students</p> <p>of tic-tac-toe activity at the end where students get to choose what tasks or what questions they answer</p> <p>I'll put up all of my PowerPoints there that will have integrated pictures and they'll have videos as well to try and explain and expand. And then I'll always add an additional slide at the end to for those that want to go on and learn more about it and it'll have different things in there, either newspaper articles, videos again or that or just areas or websites that they can go, and they can do more research on the topic that they find exciting.</p>
Resources	Collaboration between teachers and departments	Meetings, department meeting, sharing resources,	<p>common level of differentiation</p> <p>collaborative list of all the different methodologies within the school that different teachers are using if there was a shared Google Drive where all of these different strategies could be placed</p> <p>in teach meet that happens in the school where teachers can get together and discuss different, I suppose, methodologies that have worked well in their class that they found worked well, whether it's with technology, whether it's not with technology, et cetera. So there is an opportunity for teachers to get together and discuss these strategies. Sometimes I feel that potentially there should be more opportunity for teachers to discuss what's working well</p>
Professional development	Teacher training Supportive management	Workshops, training, collaboration	<p>we could be given more workshops,</p> <p>no I do feel like we are supported</p> <p>the school is very good</p> <p>feel there could always be more support and even more hands-on workshops. It would be lovely to see some of these methodologies in action, rather than kind of hearing about it and not really maybe knowing what the most effective way is to use it.</p> <p>So the supports are there.</p> <p>And management are really on board with the likes of that teach meet. They are really on board with us, you know, observing others and looking at each other's teaching techniques, not only if when you are a student teacher but overall</p>