

**Combining Differentiated Instruction with practices from
Intercultural Education: an exploratory case study from a
Finnish classroom**

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ABSTRACT

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While classrooms are becoming gradually more multicultural and multilingual, many teachers implement practices of theories like Differentiated Instruction (DI) and Intercultural Education (IE) in their teaching to cater to their students' variety of learning needs and promote equity (Valiandes, 2015). Although a lot of research has focused on both DI and IE theories, less research has been done regarding the combination of them.

It has been argued that DI and IE share key elements, and complement each other. In both Finnish and broader educational contexts, a gap exists between theoretical approaches to multicultural and intercultural education and the actual practices implemented in schools. This exploratory case study investigates these implementations in a Finnish classroom through a blended DI and IE framework. Two interviews with the classroom teacher and classroom observations indicated that although the DI elements were strong, the IE elements were lacking. Themes emerging from this study highlight a variety of DI teaching practices, CLIL displays, and cooperation between the teacher and the other grade teachers as well as the parents. Regarding IE themes, the findings showed more focus on familiarizing non-Finnish students with the Finnish culture, a connection between expressing culture and religion, and creating a strong teacher-student relationship and a safe and collaborative classroom environment.

Keywords: differentiated instruction, intercultural education, multicultural and multilingual classroom

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1 INTRODUCTION

Today's cities and societies are becoming more and more multicultural and multilingual (Acquah et al., 2016), and this has expanded to the classrooms as well, where teachers are required to attend to students from a variety of cultural and socio-economic backgrounds. Thus, educational research is expected to propose practices that ensure equity for all students. For this reason, some educators are implementing practices from theories of Differentiated Instruction (DI) such as modified process, content, product, and learning environment depending on the student. Other teachers follow Intercultural Education (IE) practices; people, religions, cultures, speakers of different languages who have different opinions and views do not only co-exist but also interact with each other.

As a student in Greece, a country that due to its geographical location was always heterogeneous culturally, I always had classmates with different cultural backgrounds. Some teachers incorporated this variety in their lessons, while others completely ignored it. When I started my teaching practice while studying to become a primary school teacher, I noticed how every child needs different care depending on their academic and social skills, but also their cultural background. I started wondering how I, as a teacher, can better attend to every student's academic, social, and emotional needs, while also respecting and welcoming their cultural background and identity. This thesis is premised on such reflection as well as my study experiences as an international student of teacher education in a post-graduate degree in Finland.

The thesis begins with an overview of foundational theories in Differentiated Instruction (DI) and Intercultural Education (IE) in and out of the Finnish context. It also includes the combined framework of the DI and IE practices inspired by the Valiandes et al. (2018) and Alenuma (2012) blended framework, enriched with elements from the 5D framework (Roiha & Polso, 2021). It then outlines the methodology used to conduct classroom observations and interviews with the teacher. The findings chapter presents data collected from a Finnish classroom, and

topics that arose from the interviews. The discussion examines the implications of combining DI and Intercultural practices. Finally, the conclusion offers recommendations for future research. The purpose of this research is to deepen the understanding of these key theories, investigate the implementation of a blended instructional framework, and ultimately offer valuable pedagogical insights for both myself and fellow educators.

2 LITERATURE REVIEW

2.1 Differentiated Instruction

Differentiated Instruction (DI) is essential in modern-day mixed-ability classrooms because it addresses diverse learning needs, strengths, and interests, ensuring equitable opportunities for all students to succeed. The contrary to one-size-fits-all mindset, where every student is treated the same as the teacher, DI tailors teaching methods, materials, and assessments. This helps engage students more deeply and supports varied learning styles, which can increase academic motivation and performance (Scarparolo & MacKinnon, 2022; Tomlinson, 2001). The importance of researching DI lies in its potential to create inclusive classrooms that accommodate a range of abilities, cultures, and backgrounds, promoting social and academic development for all learners (Heacox, 2012).

Various scholars have defined and described Differentiated Instruction (DI) throughout the years. It has roots in other theories but has also developed since its introduction. For these reasons, there is no one true definition; rather, there are multiple definitions that emphasize aspects of DI. According to Scarparolo and MacKinnon (2022), DI can be defined as an inclusive instructional teaching approach, pedagogical practice, or theory. Their definition states that “teachers make modifications to the content, process, product, and learning environment based on their knowledge of their students’ readiness, interests, and learning preferences” (p. 3). In other words, teachers using various DI techniques provide their students with different materials, or through different media allowing students to use alternative pathways to learn or complete their goals. This definition presents the key elements of DI, i.e., content, process, product, and learning environment.

One of the most important scholars regarding DI is Tomlinson who, through her extensive work on the matter from the 1990s to today, developed the already existing idea of differentiation in the classroom creating a clear framework for the teachers who wish for more equity and fairness. According to Tomlinson (2014), DI as a theory is based on the equilateral learning triangle, where the points are the teacher, the students, and the learning material. The teacher is responsible for creating a supportive learning environment and guiding students to explore

knowledge by offering them interesting and meaningful material. DI is about adjusting the learning material for the students and cultivating a creatively safe and caring learning environment in which they can explore their knowledge and abilities. As stated by Tomlinson (2001), a differentiated learning environment is characterized by a welcoming student environment, where mutual respect is absolute, there is a feeling of safety, and collaboration between the students and the teacher to succeed and grow together.

The close and trusting relationship between the teacher and their students is a key aspect that is essential to delve further. Valiandes (2015) notes that DI philosophy connects to Vygotsky's theory about the zone of proximal development. According to this constructivist learning theory, a great deal of importance is given to the social context and social interactions of the learner (Subban, 2006). The teacher has a central role in this theory and assists the students in reaching their full potential through purposeful and proactive lesson planning, adding to the pre-existing knowledge of their students with scaffolding, constructing new knowledge upon existing foundations (Subban, 2006; Valiandes, 2015). The teacher is more than just an instructor since it is crucial to attend to students' physical and emotional needs to develop a more trusting relationship. In fact, based on a study by Hamre and Pianta (2005), a positive teacher-student relationship that provides strong instructional and emotional support can prove to be essential to students at risk of failing school. According to Tomlinson (2014), the teacher, before starting to teach new knowledge, ought to be caring toward their students by taking the time to learn about their interests, dreams, and everyday concerns. Taking care of their students' needs first will foster positive teacher-student relationships that increase motivation (Claessens et al., 2016) and empower students to concentrate on their learning (Beach & Strijack, 2020).

Teachers also ought to keep in mind the value that all students have just by being human and acknowledging and celebrating their individuality at the same time. It is important to see the classroom's diversity as an opportunity to learn from each other and not as a complication, promoting a more inclusive world in general and promoting a growth mindset. Also, according to Tomlinson and Imbeau (2010) both teachers and students need to develop a growth mindset, where students

explore their limitations and learn to use their creative thinking and teachers believe that all their students can learn and exceed their expectations when provided with learning opportunities of high quality and continuous encouragement.

Additionally to the relationship between the teachers and their students, researchers Valiandes et al. (2018) and Alenuma (2012), drawing from previous theories, describe the key elements of DI in more detail. For the content, the teacher uses a range of practices to provide activities for the students' different levels to make the teaching topic accessible to everyone. The process is closely related to how students learn and understand the content. The differentiation, for instance, can occur by allowing students to follow their own studying pace and work in groups or individually. The product is how the students demonstrate what they have learned. The layout itself and how these affect the learning environment. For example, setting the furniture in a way that allows individual and group work, provides access to the proper material and supplies, and forms routines to utilise the space. These are the components of the learning environment. Lastly, they introduce affect as an additional key element, which acknowledges the effect that students' emotions and feelings have on their learning and calls for the teacher to attend to the emotional needs of students as described by Tomlinson (2014).

Santangelo and Tomlinson (2009) argue that DI has proved effective for primary and secondary students based on various studies conducted in the early 2000s in teacher education programs and professional journals. After a review of several studies about the effectiveness of DI, Subban (2006) supports the use of DI. According to the researcher, previous studies proved that DI practices engage and stimulate learners, especially with problem-solving tasks (Rock et. al, 2008), improve mathematical and reading scores, and are beneficial to the brain because the DI practices create a safe and encouraging learning environment and meaningful connections between personal experiences and knowledge Subban (2006). Regarding the teachers, teachers who witnessed positive outcomes seemed more positive to continue implementing DI practices, and collaboration between teachers was enhanced (Rock et. al, 2008; Subban, 2006).

To further argue the importance of implementing DI practices in the classroom, some of the latest papers showcase the positive effects in both academic and socioemotional aspects. In their study, Valiandes (2015) has shown the positive academic effects of DI on literacy and reading in classrooms where DI practices were implemented compared to the control group that followed mainstream learning. The study was conducted in 13 Cypriot primary schools, on 479 4th-grade students with mixed abilities and their 24 class teachers. Because the study took place for a year, the author underlines the need for more longitudinal research. Additionally, Pozas et al. (2021) studied the socioemotional positive effects, with a 5-point Likert scale questionnaire distributed to 379 eighth-grade students from both regular and inclusive classes around Austria. The results showed a correlation between DI and positive effects on students' academic self-concept, well-being, and social inclusion, promoting intrinsic motivation for learning and higher academic achievements. Scarparolo and MacKinnon (2022), also examined the role of student voices in an Australian classroom of Year 5 and 6 boys during a unit using differentiated instruction. Teachers offered students choices in activities and presentation methods, leading to increased engagement, motivation, and satisfaction. The results showed positive outcomes; the students valued the inclusive approach, feeling it promoted equity and fairness.

Except for the effects of DI, there are plenty of studies regarding the teachers' perspectives on the matter. It is worth mentioning that although plenty of studies show that teachers agree with the concept of DI, limited teaching experience and more extensive workload are some of the main obstacles that discourage teachers from applying more DI practices in their teaching (Al-Shaboul et al., 2021). For this reason, it is important to study and present real examples of how these practices can be seen in a classroom, such as how DI is implemented in Finnish classrooms.

2.2 Differentiated Instruction in the Finnish Classroom: the 5D Model

Differentiation in Finnish classrooms is a common teaching practice and agreeable with the Finnish Curriculum. Nikula et al. (2022) state that equality and equity are central to the Finnish educational system and a common practice in Finnish

classrooms. Both teachers and students participating in Nikula et al. 's (2022) study viewed equity as attending to student diversity, connecting it closely to the differentiation of the school material. Roiha & Polso (2021) introduced the 5D Model for Differentiated Instruction based on research-informed practices implemented in Finnish classrooms to further DI applications in the classroom. The five dimensions of the model as depicted in Figure 1 are teaching arrangements, learning environment, teaching methods, support materials, and assessment.

The first key dimension is teaching arrangements. This includes practices such as flexible grouping, where groups are not permanent and students can be openly assessed and mixed up according to their needs to practise peer support. It can also mean that the teacher gives different instructions to the groups to cater to their learning needs. This allows both students and teachers to move around the classrooms to complete various activities when needed. Students are allowed to move across grade levels, providing opportunities for upward differentiation. Another example of teaching arrangements is co-teaching; two teachers share the class responsibility or one leads the lesson and the other can assist the teacher and the students when needed. There are also paralleling lessons, where students stay at the same place and teachers move, to make special education needs resources more easily accessible. Lastly, there are remedial solutions, to prevent and alleviate learning difficulties. For instance, by introducing the topic beforehand to a group of students who might need more time to process it.

The second key dimension is the learning environment. As mentioned also in Scarparolo and MacKinnon (2022), the way that the learning environment is organised plays an essential role in the DI practices that can be followed. On the one hand, there is the physical learning environment, like the school building, the classroom setting with the furniture, and the objects. In case the teacher utilises workstations, where students can work on a different activity in every station, it is suggested to extensively use labels, so the transitions between the activities can be smoother. It is also noted that labels can support language acquisition, especially in classrooms where there are students with other than the mainstream language as their mother tongue. Working stations also allow for different styles of learning, for example, there can be couches, sofas, desks, or even standing desks. Naturally, an

important part of the physical environment is the seating arrangements; where the students sit and with whom can affect their concentration. On the other hand, there is the psycho-social learning environment, the feelings and emotions present in the classroom. These are regulated by the teacher, who is responsible for creating an emotionally safe environment with routines and smooth transitions, which students uphold by following the classroom rules (Roiha & Polso, 2021; Tomlinson, 2014).

The third key dimension of the 5D Model is the teaching methods, that is, the DI practises that the teacher can utilise during their teaching. One such method in practice is independent work. The students get clear instructions on what they need to work on and can sit in their seats and work by themselves. Depending on the classroom rules, students can also be allowed to move around or use headphones to reduce their stimuli or have visual material for assistance. The teacher can also hand out a list of things for the students to complete in a set time, which is the contractual project work method. As mentioned above, if the setting of the classroom allows it, the teacher can organise a variety of stations for the students to work, where they can move gradually and at their own pace from activity to activity. Finally, a method that allows students to differentiate their learning process or even product and leaves room for plenty of initiative and creativity is the project learning method. During projects, students can also practise their soft skills, like time management and working with others.

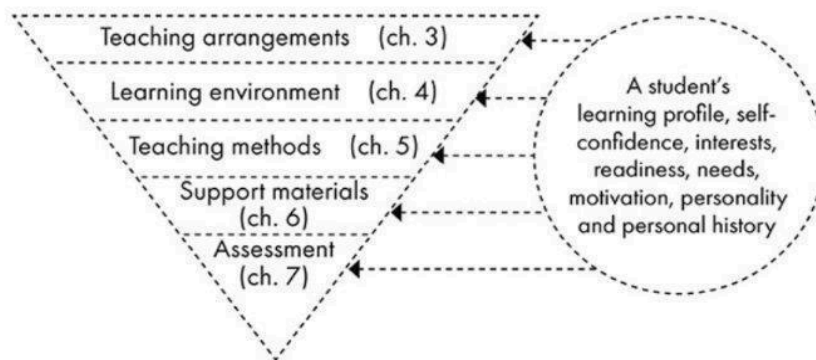
The fourth key element is the differentiated material. As briefly mentioned above, a large amount of DI philosophy is that different students have different needs and thus the teacher caters to them with personalised material. This can be challenging when schools follow the mainstream textbooks, so it is suggested to either choose textbooks and material with already differentiated content or then the teacher has to create extra material based on the students' needs. For the lowest achieving students, especially during the first grades, it is important to have visual aids and educational equipment. The authors also highlight how essential it is for school teachers to cooperate and create a material bank or a cloud file to share. Moreover, teachers are encouraged to utilise ICT, which allows students to practise based on their levels and work independently. Furthermore, materials that reduce

stimuli, like noise-cancelling headphones, dividers, and furniture that makes seating easier are encouraged.

Lastly, the fifth component is the differentiated assessment. Assessment can take place every day, where the teacher usually gives positive feedback and chances of success to the students during the learning process in the form of formative assessment. There can also be a more official assessment; usually at the end of a unit or a project. When there are numerical grades, then the assessment is summative. There are a variety of ways to assess the students; for example, self and peer assessment that also align with the ideas of meta-cognition skills. Another common way in mainstream classrooms is testing, but in a differentiated classroom, it should not make the students anxious but rather be in line with the student's individual goals. Other ways involve portfolio assessment, where the students have gathered their projects and/or their work or presentations. Students can also practise their meta-cognition skills by using learning journals, where students are free to reflect on their learning. Lastly, the teacher can have pedagogical discussions with the student and/or the parents and can access the everyday learning process of their students from the homework or by setting common goals as a classroom but reaching them individually or as a group.

Figure 1

Depiction of the 5D Model (Roiha & Polso, 2020, p. 61)



2.3 Multicultural and Intercultural Education in and out of the Finnish context

21st-century classrooms are becoming more and more culturally diverse with students from a variety of cultural backgrounds, experiences, native languages, ethnicities, religions, and socioeconomic statuses (Buzzai et al., 2022; Çelik, 2019e). In Europe, even countries like Finland that were considered by some as traditionally homogenous are becoming more and more heterogeneous with immigrants and refugees as a growing part of their population (Acquah et al., 2016). Especially recently, Europe had to accommodate and offer education to millions of Ukrainians (Ukraine Data Explorer, 2023). OECD (2015) aiming to address the educational emergency of diverse classrooms, investigated how immigrant students face difficulties that can hurt their academic performance, but also suggested that with the proper education, there are chances for high academic achievement. For this reason, education policymakers and teachers are exploring theoretical approaches and learning practices that can minimise these difficulties, welcome diversity, and provide cultural inclusion in the classrooms. Rissanen et al. (2016) argued that there is oftentimes an overlap between the concepts of Multicultural and Intercultural education, and therefore they proposed to refer to them as synonyms. This extends to the present study as well. A short explanation of the terms as well as theories connected to these theories is presented.

Multicultural Education (MC) aspires to provide equal opportunities for all students to succeed in school. The multicultural approach in education has its roots in the 1950s and 1960s. It is linked to the Civil Rights Movement in the United States aiming to ensure equality in education and inclusion for ethnic and cultural minorities (Antony & Neider, 2016). For the classrooms to promote multicultural competencies, teachers and educators must embrace a multicultural attitude and become more knowledgeable and accepting of diversity (Buzzai et al., 2022). This can be achieved by reflecting on their cultural identity and multicultural competence and then working on their multicultural teaching efficacy (Kim & Connelly, 2019h).

According to Alenuma (2012) and Banks (1993), the main dimensions of multicultural education are content integration, knowledge construction process, prejudice reduction, equity pedagogy, empowering school culture, and social

culture. Content integration emphasises the inclusion of diverse cultural sources in school materials, such as texts by authors from marginalised or minority groups. The knowledge construction process encourages students to investigate to what extent the curriculum includes multiple perspectives, representing both dominant and non-dominant cultures. Guided by their teachers, the students also understand how knowledge is created and how the racial, ethnic, and social-class positions of individuals and groups influence them. In equity pedagogy, the teacher proceeds to alterations to accommodate the different needs of students and assist their learning and experience success. Such techniques include simulations, discovery, collaborative groups, and role-playing. Teachers ought to get to know their students and their cultural backgrounds to better support their students' learning. Prejudice reduction aims for the students to develop democratic values and positive attitudes towards their own and their families' cultural identities. It also promotes acceptance of ethnic, racial, and gender diversity. Lastly, empowering school and social culture calls for the entire school community to welcome and celebrate all the students coming from different ethnic, racial, and social-class groups and involve their families as well, on a macro level.

Antony and Neider (2016) argue that there are limitations to this theory regarding building a more inclusive learning experience. They suggested three theoretical tools to overcome these limitations: critical pedagogy, culturally relevant teaching, and culturally responsive teaching. In critical pedagogy, the aim is not to integrate, but rather to transform the societal structure. In contrast, culturally relevant teaching is to prepare students to challenge structural inequalities. Lastly, culturally responsive teaching means that the teacher has a vast knowledge of cultural diversity and changes the curriculum to include more culturally diverse material.

Intercultural Education (IE) has elements from these theoretical tools. It goes beyond merely acknowledging cultural diversity in the classroom to fostering opportunities for interactions, giving a practical meaning to the preposition "inter". IE aims to nurture mutual respect, understanding, and collaboration among students with diverse cultural experiences. IE promotes interaction and dialogue; meaning that it facilitates communication and engagement among different cultural groups,

mutual understanding; promoting learning from one another and the development of intercultural skills, and coexistence and cooperation; (Dervin & Gross, 2016).

Although equality and equity are emphasised in and out of the Finnish context in multicultural and intercultural education, there is a gap between the theory and the actual practices in schools. Holm and Londen (2010b) analysed Finnish policies and curricula. They concluded that although there is an emphasis on equality, equity as also previously mentioned by Nikula et al. (2022), and multicultural principles, the classroom reality is different. Multicultural education in Finland does not cultivate multicultural and multilingual competencies for all students, but it is rather a means for integrating students with immigrant backgrounds in Finnish society and cultivating “tolerance” for the rest of the students. One reason for this is the fact that there is not enough appropriate material for enhancing multicultural competencies. Non-Finnish students have the right to learn their mother tongue and it is common to acquire additional support in their learning while developing a bilingual and bicultural identity. Although the ethnicity, religion, and language of immigrant students are respected, their cultural, class, gender, and racial differences are usually overlooked. Holm and Londen (2010b) state that Finland ought to move from immigrant education policies to critical multicultural educational approaches to cater to the increasing cultural diversity in schools.

Dervin et al. (2012) also reviewed discourses on multicultural education and intercultural competencies in Finland and found similar results to Holm and Londen (2010b). The discussions with decision-makers, researchers, and teacher-students from the University of Helsinki, needed to improve in the applications of multicultural education. Most policies were focused on cultivating a bicultural identity for the non-Finnish students and issues with how intercultural competencies were perceived arose. The authors suggest renewing these perceptions, encouraging focusing on a more critical way of perceiving culture and cultural similarities rather than differences. In a follow-up short case study, Dervin et al. (2012) explore how these renewed notions for intercultural practices can be implemented through intertextuality to construct “glocal” (a term that describes both global and local) competencies (p. 8).

Furthermore, Rissanen et al. (2016) investigated how student-teachers develop intercultural sensitivity, particularly toward religious identity, through a self-reflective learning process in a pilot course. The course took place during the spring of 2014. The data was collected from course diaries from 31 Finnish student teachers who were asked to keep a diary and write their reflections during the pilot course. The first round of analysis was inductive content analysis that gave a general view of the topic. In addition, the researchers examined one reflective diary in depth. The findings underlined the importance for teachers to develop self-awareness, and to critically self-reflect on one's cultural and religious identity. For intercultural competencies, it is essential to develop empathy towards other cultural backgrounds, religions, and world views as well.

2.4 The Combined Framework: Interculturally Differentiated Instruction

Valiandes et al. (2018) and Alenuma (2012) argued that Differentiated Instruction (DI) and Intercultural Education (IE) complement each other. Both theories share the basic premises of inclusion, equality, and equity. However, there are different emphases; DI focuses on the students as individuals and requires proper planning from the teacher to accommodate everyone's academic needs and skills and IE recognizes and utilizes the students' unique cultural backgrounds and focuses more on building a community. Therefore, a framework that combines these theories, by blending the key elements of each theory, would be recommended to provide a more holistic teaching approach for students in mixed-ability and culturally diverse classrooms. Neophytou et al. (2018) named this framework "Interculturally Differentiated Instruction" (p. 398).

Alenuma (2012) suggested a blended framework of Multicultural Education and Differentiated Instruction key elements. In this framework, content (DI) can be combined with content integration, knowledge construction, and prejudice reduction (IE). Process (DI) can be combined with equity pedagogy, and prejudice reduction (IE). Product (DI) can be combined with knowledge construction and content integration. And lastly, affect and learning environment (DI) can be combined with empowering school culture (IE). It is worth mentioning that the key concepts from

both theories can be mixed in multiple ways. Later, Valiandes et al. (2018), incorporated IE in this framework, mainly by adding the ideas of CRP and CSP in the blended framework. The researchers proposed that culturally responsive pedagogy (CRP) -which addresses the cultural identity of the students and how they can succeed academically- would serve as a context to develop the blending of DI and IE. Moreover, culturally sustaining pedagogy (CSP) complements the previous theories, since it points out the importance of pluriform and multicultural representation in contrast to generating mainstream reproducing systematic inequities.

Neophytou et al. (2018) examined how the combination of the DI and IE theories had been applied in mixed-ability and culturally diverse classrooms in Cyprus. The researchers conducted a case study that included teacher interviews, classroom observations, and lesson plans from 22 schools around Cyprus. The thematic analysis consisted of 50 teacher interviews, 30 non-participatory observations occurred during a sixth-month period, and 30 lesson plans. The main findings were that, despite the teachers' best efforts to follow Alenuma's (2012) blended DI and IE framework, there was no continuity and they failed to become an inextricable part of the teaching process. Although teachers' instructions were significantly enhanced with DI and IE methods and techniques, the teachers still taught with the average student in mind. The researchers suggest that further professional development to cultivate interdisciplinary and intercultural competencies, embodying teachers' ethical consideration and efficiency is imperative to applying CSP through interculturally differentiated instruction.

2.5 Complementary CLIL practices

In a multicultural classroom, it is important to acknowledge not only the diverse cultural backgrounds but also the students' multilingual backgrounds. In this context, Content and Language Integrated Learning (CLIL) and Translanguaging are both theories that complement DI and IE in this thesis. Montalto et al. (n.d.) described in detail how lesson plans based on the CLIL theory aim to teach students the target language through content and consist of the 5Cs; content, cognition, competence, communication, and community. Content is related

to the students' existing knowledge; the new knowledge is constructed based on existing foundations with the teacher's assistance through scaffolding. This is in line with Vygotsky's zone of proximal development (Tomlison, 2014), where the teacher acts as a mediator and the students learn from their social interactions. Cognition includes the thinking skills of recalling, repeating, listing, and understanding, as conceptualised in Bloom's taxonomy; a cognitivist theory (Gabilon, 2020), where the desirable acquired skills are categorized into Lower and Higher Order Thinking Skills (LOTS and HOTS). Montalto et al. (n.d.) propose not to conceive Bloom's taxonomy in its usual linear form, but as a wheel, where all the thinking skills have their importance and learning can be a never-ending process. Competence describes the learning outcomes of the lesson. Communication focuses more on the language outcomes and is associated with the content terminology, what language is used in the communication of the lesson, and what sort of communication is allowed between the students. It is worth noting here, that translanguaging not only allows for the mainstream language and even the students' mother tongues to emerge during the lesson but encourages learners to utilize their entire linguistic repertoire to empower them and enable them to reach their full potential (Meyer, 2013). Lastly, the aspect of community has been added lately to the CLIL practices, and relates the lessons to the "real world". Community is often associated with culture, whereas this is the classroom culture, the students' culture, or the culture that surrounds them.

CLIL can also be combined with other teaching methods like Differentiated Instruction. Roiha (2014) investigated the differentiation methods used by primary teachers in Finland in CLIL classrooms with English as the target language. The most frequently used methods for all students were individual support -teacher assistants are quite often in Finland-, presentations and projects, and differentiated objectives. For underachieving students, providing visual and oral support during the teacher's instructions, allowing students to talk in Finnish, and encouraging peer support and grouping were the most popular strategies. Moreover, discussing in the target language and providing extra material to the gifted students was another common method. Nikula et al. (2022) demonstrated that differentiated material, especially for migrant students with academic challenges in Finnish lessons, was widely accepted

by Finnish students and teachers. However, when it came to assessment, participants agreed that the assessment criteria should be the same for everyone. Additionally, even outside the Finnish context, the DI practices for CLIL appear to be similar. In the German and Austrian context, teachers support language and content learning with linguistic scaffolding, usually by handing out worksheets of useful phrases or task scaffolding, providing a step-by-step guide, or modeling the task procedure. The teachers also sometimes repeat crucial information in the mother tongue and give extra attention to peer support, prefer pair or group work, and project-based learning, and generally follow student-centered approaches (Bauer-Marschallinger et al., 2021; Siepmann et al., 2021).

Lastly, it is important for further research to consider the challenges that teachers face when they incorporate CLIL and DI strategies. The least challenging issues that Finnish teachers face are their students' lack of knowledge, the practical differentiated methods, and challenges in cooperation. On the other hand, the most common challenges were large class sizes, physical classroom settings, material, and lack of time and resources (Roiha, 2014). It highlights how important is it for education research to focus on investigating more practices that can be applied in the classrooms. Another compelling question could be what changes for a teacher when planning and teaching in and for a second or foreign language.

3 RESEARCH TASK AND RESEARCH QUESTIONS/PROBLEMS

As mentioned in the introduction (section 1), the present study aims to better understand the DI, and IE practices followed by the teacher in a multicultural Finnish classroom. To better understand the DI practices, the 5D Model for Differentiated Instruction was followed, using its five dimensions of teaching arrangements, learning environment, teaching methods, support materials, and assessment (Roiha & Polso, 2020). For the IE elements, Valiandes et al.'s (2018) blended theoretical framework was the guideline, with the key elements being content integration, knowledge construction process, equity pedagogy, prejudice reduction, and empowering school culture and social culture. For the combined theories, Valiandes et al.'s (2018) blended theoretical framework was also followed. Complementary to these theories, the definitions of CLIL and translanguaging were additionally used for a deeper understanding of the complexity of the multilingual aspect of the classroom. The research questions were:

- What Differentiated Instruction practices are implemented in a multicultural/multilingual classroom?
- Does the teacher combine Differentiated Instruction and Intercultural Education practices in their classroom?

4 RESEARCH IMPLEMENTATION

This study investigates the integration of Differentiated Instruction (DI) with core components of Intercultural Education (IE) within a Finnish classroom. Because of the in-depth character of this study a combination of qualitative research methods were followed to examine the “whys” and “hows” of the research questions (Berryman, 2019; Tracy 2013). The study includes semi-structured interviews, field notes from observations, and material gathered from the observed lessons. As Ebneyamini and Moghadam (2018) suggest, qualitative case study frameworks are well-suited to examine complex educational settings, facilitating in-depth analysis through exploratory design. The data were collected and analyzed within an exploratory case study framework (Yin, 2017), led by the research questions and the proposition that DI and IE have similarities as theories (Alenuma, 2012; Roiha & Polso 2020; Valiandes et al. 2018).

4.1 The context of the research

This case study centers on teacher’s practices and uses classroom observation and interview data. To ensure relevance, selection criteria included a multicultural student body, DI-oriented teaching, and English instruction for specific subjects. The classroom teacher who fit the criteria was contacted through the university’s network and agreed to participate, making the sample convenient or opportunistic and the sampling purposeful (Tracy, 2013). Tracy (2013) explains that a sample is considered convenient or opportunistic when the sample is selected utilizing the existing researcher’s networks and the sampling is purposeful when the sample is chosen based on the research goals (pp. 134-135). This sampling approach helped to access an environment directly addressing the research questions, by observing practices related to my research questions and literature review.

The observations took place in a second-grade classroom in a primary school. This particular school had CLIL courses embedded in its curriculum and one bilingual group in each grade (i.e., Finnish and English-speaking groups). Usually, this group has about 60% and 40% of the courses taught in English and Finnish respectively, although the teachers can have some flexibility with the ratio of the

languages. In this second-grade classroom, the English language was the means of instruction for English, Mathematics, and Science, while Finnish was the means of instruction for Finnish, Music, Art, Physical Education, and Religion/ Ethics. The participant was a teacher who had been raised in the Finnish culture and had attended Finnish school and university. The teacher had completed a Master's in educational sciences. During their education, they had completed CLIL courses and were trained as English language teacher. They had been teaching for five years when the data was collected. While it is important to give background information about the participant, giving away further information would undermine maintaining their anonymity, considering the design of this study, i.e. a case study (Simons, 2009).

4.2 The researcher's position

It is essential to acknowledge that as a researcher, my background affects my research. More precisely, my own ontological and epistemological perspectives affect the data collection and analysis. According to Moon and Blackman (2014), ontology can be seen as a spectrum with naive realism and relativism being the two extremes, with one advocating the "perfect truth" and the other one supporting that everyone creates their version of reality respectively. However, absolute relativism might showcase the different realities so much that everyone is living in their "own reality" and no attempt is made to relate to one another, ultimately being unable to make a difference in education. On the other hand, extreme realism does not leave any room for the researcher to admit that there is a limit to what we can understand with our current knowledge. Echoing Ebneyamini and Moghadam's (2018) recommendation to align research design with one's worldview, I position myself between critical realism and bounded relativism; an approach that recognizes various realities across groups (Tracy, 2013). This stance is especially fitting for my study's multicultural context, as it bridges potential cultural differences between the teacher, students, and myself.

These ontological choices connect with my epistemological views, aligning closely with a constructionist approach underpinned by interpretivism (Moon & Blackman, 2014). This epistemology is reinforced by Ebneyamini and Moghadam

(2018), who underscore the importance of interpretive frameworks in case study research for capturing participants' perspectives in context. Within this framework, I seek to understand the teacher's interpretations of Differentiated Instruction (DI) and Intercultural Education (IE) as they are presented in the interviews and implemented in practice in the observations. Here, one needs to be careful while analyzing the data about what is considered constructing understanding and what is constructing reality (Tracy, 2013).

Something more to consider in my research is the paradigm I am following. Alongside the chosen epistemology stance, the interpretive-constructivist paradigm aligns best with my study. It leaves space for reality and knowledge to be conceived as something that can be transformed through communication, interaction, and practice, which adds value to educational research (Tracy, 2013). The data I gather, analyze, and interpret will inevitably reflect my own experiences and perspectives as an educational researcher and teacher, which, as noted by Simons (2009), is not only inevitable but can also add depth to the research. My background thus becomes a valuable part of the educational research process.

4.3 Collecting the data

Since my research took place in a classroom, I had to be careful to follow not only the responsible conduct of research but also the legal requirements. After I had the agreement of the teacher to participate in my research, I contacted the municipality to which the school belonged and requested permission to enter the classroom and observe lessons by submitting a short plan for my research. After that, I contacted the school principal and informed them of my actions, and with the help of the teacher, the parents of the students were contacted and informed.

4.3.1 Observations

Observers can be categorized by their level of involvement as "complete participant", "play participant", "focused participant observer", and "complete observer" (Tracy, 2013, pp. 101-113). The "play participant" would be the appropriate level of my involvement as an observer in this study. The observer as a "play participant" takes a little space from the subjects, but is still an active member who

engages in some of the group activities; the researcher is close enough to gather a range of data by asking questions and observing behaviors openly, but at the same time can remove themselves from the research context and re-evaluate their perspective concerning the examined phenomenon. As a “play participant,” I participated in the teaching process during my observations as a teacher assistant, which gave me the chance to examine more closely the variety of learning techniques that the teacher offered to their students and the teaching instructions. As a result, based on the level of involvement, as described in Tracy (2013), I was involved enough in the classroom to gather a range variety of data by helping the students during lessons and writing down notes, while also keeping my distance to remain objective enough during the data collection.

There were a total of seven school days on which the observations took place, in the second-grade classroom as depicted in Figure 2. The school days were chosen based on observing as many different subjects and as many lessons in English as possible. Additionally, some observations included lessons in Finnish, during which I mainly focused on the non-verbal communication between the teacher and the students, since my Finnish language level was not adequate to fully understand the content. In these cases, the teacher would either explain some things in English for me during the lessons or right after, so I could follow the classroom events better and take down meaningful fieldnotes.

For the observations, I built my observation framework on the interpretive paradigm and the constructivist theory that allows reality and knowledge to be conceived as something that transforms through communication, interaction, and practice (Tracy, 2013; Simons, 2009). Constructivist theory allowed me to immerse myself in the classroom environment and to understand the teacher’s beliefs and opinions to make sense of their behavior and instructional choices. This theory allows researchers to study human behavior with its faults and without the limitations of trying to find the “perfect” and “absolute” truth (Tracy, 2013).

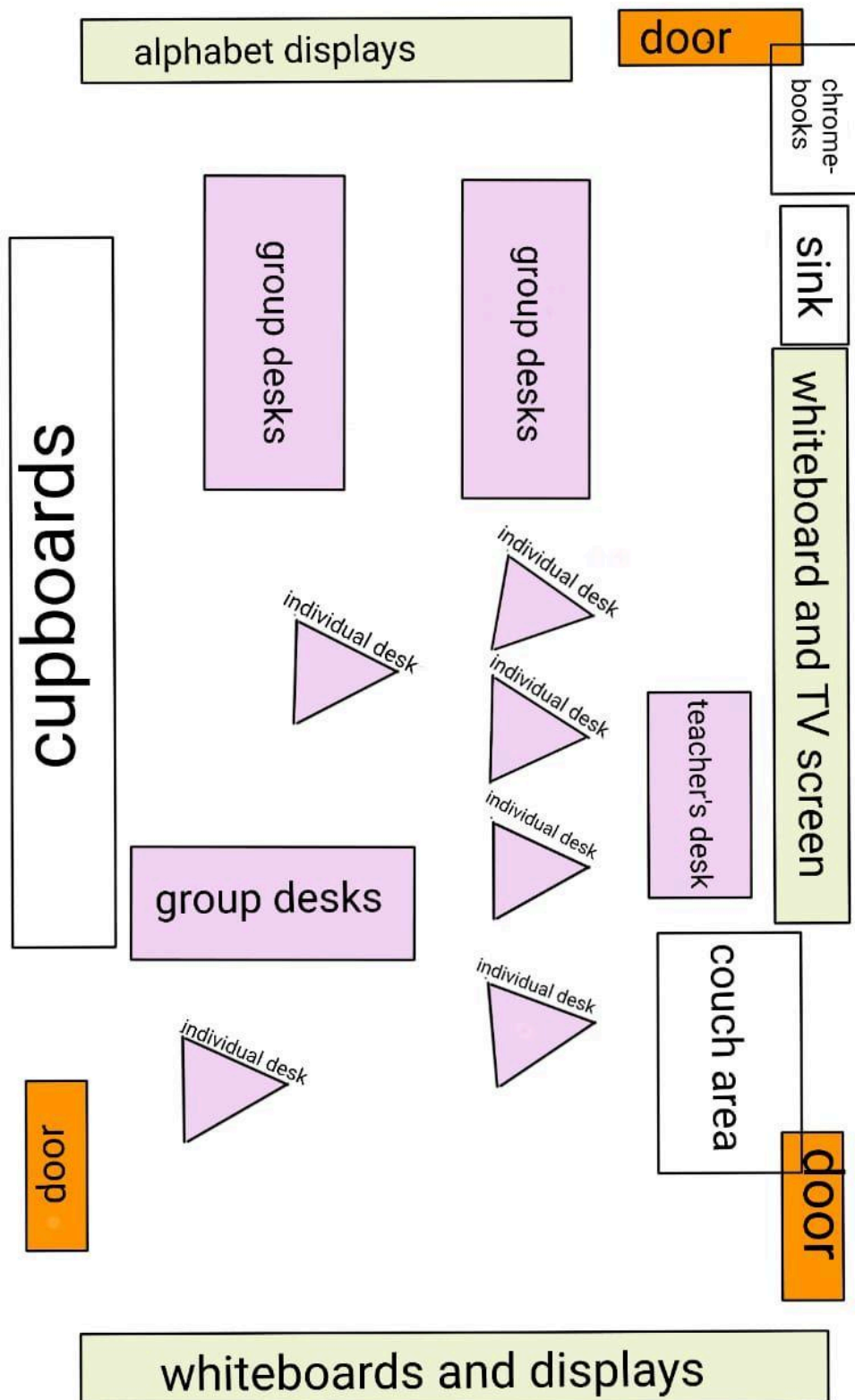
I started building the framework for my observations based on a framework by Alenuma (2012) that combined DI with aspects of multicultural education (MCI) and later enhanced with IE elements in Valiandes et al.’s (2018). For my study to be more accurate regarding the Finnish context, I utilized Roiha and Polso’s (2020)

work, which is a very clear guide for educators to successfully differentiate instruction in a Finnish classroom. Drawing on these frameworks, I formed the framework for my observations, with the help of which I formed the questions of the first interview.

The observation framework was a table with columns designed to assist me in organizing the observations and constructing the questions for the interviews. One column included the main topics that I wanted to investigate during my data collection. These topics were related to the key elements of DI and IE. During the analysis, the codes arose from this column, inspired by Roiha and Polso's (2020) book. Moreover, there were columns for the interview questions, and lastly, some room for my reflections and possible connections with other related theories, leaving room for emerging data as well. After the first day of my observations, I assessed and modified the observation framework, because by following the framework too strictly I would not be doing the teacher justice. In the observation days that followed, I took field notes and then added my notes and reflections to the relevant columns in my observation framework. This allowed me to take emerging themes into account as well. It also allowed me to ponder the chosen theories and consider additional theories that might suit these data better; like CLIL and translanguaging practices.

Figure 2.

Bird-eye depiction of the layout of the classroom during the observations.



4.3.2 Interviews

Depending on their structure, interviews can be structured or unstructured. The structured interview consists of a list of questions asked in a specific order. They are very useful when comparing and contrasting data, but also when research assistants are necessary. On the other hand, the unstructured interview is more flexible and can raise new conversations, but also collect more meaningful and complex data, where more experience might be essential for analyzing them (Tracy, 2013). A semi-structured interview was conducted with the teacher before the observations to get some general information about their teaching theories and practices. Additionally, a more structured interview after the observations was conducted where the observed practices were discussed at more length to provide a more holistic understanding of them.

The first interview took place a week before the observations, in a classroom of the school, and lasted for about forty-five minutes. During the first interview, there was a short interruption because of an emergency phone call that the teacher had to answer. The questions were formed based on the framework (Roiha & Polso, 2020; Valiandes et al., 2018), and the order of the questions was based on the thematic topics of DI and IE. For example, in the beginning, there were more general questions like “How long have you been a teacher?”, “Why did you choose to be a teacher?”. These were followed by more specific questions that were somewhat adjusted when necessary to follow the flow of the teacher’s responses (see Appendix A).

The second interview took place a day after the last observation, in two different classrooms of the school, with a short pause between changing classrooms, and lasted for about seventy-five minutes. The interview questions were formed using a new table including a column with notes from the classroom observations and reflections. The purpose of this interview was to clarify and verify or contest my field notes and interpretation of the classroom observations. For example, one code that arose during the first interview was the key values of the teacher’s teaching: “I think key values that I have as a teacher are like I want school to be enjoyable for

everybody I want there to be kind of fun when kids are in school but also that they kind of learn that's not all it's not always also fun sometimes". Such values could be related to how the teacher's beliefs shape the socio-emotional environment of the classroom and, thus, inspired the following question in the second interview: "In the first interview, you talked about providing your students with "a nice environment no matter what" and you mentioned that you leave space for humor and responsibility. How is that reflected in your classroom rules? How did you establish them in the first place?". The rest of the questions were constructed following the same process; forming follow-up questions based on answers from the 1st interview and field notes from the observations. The interview resembled a friendly discussion, as the teacher was willing not only to respond to the questions but also to discuss things that arose during the interview and reflect on their teaching practices (see Appendix B).

4.4 Analyzing the data

The collected data were analyzed using thematic analysis, following the process described in Braun and Clarke (2006). The collected data consisted of the transcribed interviews, the filed notes from the observations, and some gathered material like copies or pictures of worksheets, pictures of the classroom setting, and pictures from the textbooks. The data collected from the observations were cataloged (see Appendix C) to better manage later in the analysis process; each artifact was given a unique number that was later added to the table as an additional column. Between the observations and the second interview, a preliminary analysis had already begun to see clearly what aspects of the teacher's teaching needed to be discussed more during the second interview.

Both interviews were transcribed and then deleted from the university-issued tape recorders, according to the university guidelines. The data was already anonymized during this stage. Later, the qualitative analysis software Atlas.ti was utilized during the familiarization stage when interview data were organized and initial codes were created (Braun & Clarke, 2006). The codes from the interviews were color-coded and later organized into subthemes. The framework was crucial to deciding on the three main themes, i.e., Differentiated Instruction, Intercultural

Education, and the combination of both. The framework worked as a guideline for organizing and naming the subthemes; the findings were not strictly guided by it and modifications were made to the framework to make space for the emerging data. After this first round of analysis, a second round of analysis was conducted where all the data from the interviews were put into the framework table against the observation data and the names of the subthemes for a more holistic picture of the collected data.

Finally, with the main three themes in mind, the final subthemes and their codes were named and organized in Table 1. This table presents the main themes and their connections to the interview data, observation data, and additional material.

Table 1.

Analysis of the themes, subthemes, and codes inspired by the framework.

Theme	Subtheme	Code	1st interview	2nd interview	Observations	Material
DI	Classroom setting	Classroom rules		x	x	
		Furniture and equipment	x	x	x	photos
		Seating arrangements: circles of trust		x	x	photos
	Cooperation with other teachers	Planning with other teachers	x	x	x	
		Special Education Teacher		x		
		Teacher Assistants (TAs)		x	x	
	Differentiated learning practices	Differentiation in subjects (Math, English)	x	x	x	Books, worksheets
		Differentiated rules		x	x	
		ICT games			x	
		Independent direction (reward lessons, list, "learning by doing")		x	x	photos
	Perceptions of DI	Teacher's beliefs of DI	x	x		
		Teacher's understanding of students' perception of DI	x	x	x	
	Skills evaluation	Flexible grouping		x		
		Formative assessment		x	x	
		Summative assessment		x		

Table 1.

Analysis of the themes, subthemes, and codes inspired by the framework.

	Teacher's self-reflection	Positive predisposition to adopt discussed practices	x	x		
		Self-reflection on their teaching practices	x	x		
DI+ IE	Language practices	Bilingualism, translanguaging	x		x	displays
		CLIL			x	Displays, worksheets
	Teacher and parents' communication	Formal discussions and Wilma		x		
		Non-formal discussions		x		
	Teacher-student relationship	Creating a safe learning environment	x	x	x	
		First name basis and teacher's authority		x	x	
		Teacher's values in the classroom	x	x	x	
IE	Getting students familiar with the Finnish culture	Finnish traditional celebrations		x		
		Teacher's own cultural awareness		x		
	Including non-Finnish cultural elements	Ethics lessons		x	x	
		Religion lessons		x		
		Teacher's views on supporting multiculturalism in the classroom	x			
		Thematic days		x	x	

Note. DI = Differential Instruction

IE = Intercultural Education

ICT= Information and Communication Technology

CLIL= Content and Language Integrated Learning

4.5 Ethical considerations

Every theoretical lens comes with its ethical questions and methodological restrictions. In this case study, there is limited generalizability since it collects data from one Finnish classroom (Ebneyamini & Sadeghi Moghadam, 2018; Simons, 2009). According to Simons (2009) and Tracy (2013), researcher's bias should be taken into consideration, since the researcher's subjectivity may influence data collection and interpretation, particularly in qualitative case studies such as this.

Despite the limitations of generalizability in this study, the research plan was designed with the Responsible Conduct of Research (RCR, 2018) in mind, ensuring that the findings are trustworthy and align with the standards of responsible research practice in Finland. The use of a combination of qualitative data collection methods still offers significant value to educational research.

The main subjects of my research were the teacher and their practices, so one major ethical question I had to face during my research was to ensure that the teacher wanted to continue to participate in my research (Lewis & Graham, 2007). To establish their involvement, the teacher was handed a modified version of the University of Jyväskylä's privacy notice (see Appendix D), informing them about their rights and the details of the research. Before the first interview, we had a short meeting with the teacher, where we discussed the research topic and agreed on details regarding the interviews and the observations. During the interviews, the teacher was informed when the recording started, paused, and ended. Later, it was considered essential for the two teacher assistants to also give their consent to participate. One did so, but the other did not. That meant that I had to omit the field notes I took from the teacher assistant who did not want to participate in my analysis. The data from the second teacher assistant might have added to the credibility of the research since there would be one more participant. However, because the observations were focused on the teacher and their instructions, the data from one teacher assistant were sufficient for the present research. Participants were informed that the data would be anonymized. Because of the very small sample, it was considered essential for the data to be anonymized to further protect the teacher, the teacher assistant, and the students. For this reason, the name of the teacher was transcribed as Mx. X and the teacher assistant as TA during the analysis, and they

are referred to as the teacher and the teacher assistant (TA) respectively during section 5. Finally, the teacher was consulted and given the opportunity to review the study's findings to confirm their alignment with the observed classroom practices.

Because this study is my interpretation of the data, it is important to acknowledge my biases based on my background when I attempt to make sense of classroom management practices and cultural elements. It is important to notice that coming from Greece, my cultural background is quite different than the Finnish context. Furthermore, my interpretations of the data were influenced by my background as a primary school teacher-student in Greece. Later, my teaching experience in an international school in Slovakia, with English as the language of instruction and students from various cultural backgrounds, allowed me to get first-hand experience in a multicultural classroom where DI practices were also implemented. My teaching background was another reason I wanted to adopt the “play-participant” role during the observations, as I wanted to interact with students and participate in the classroom, but also because I wanted to assist the teacher as a token of my appreciation for their participation in my study. All these, have affected what I have found compelling enough to note down while taking field notes and how I have understood some of the collected data.

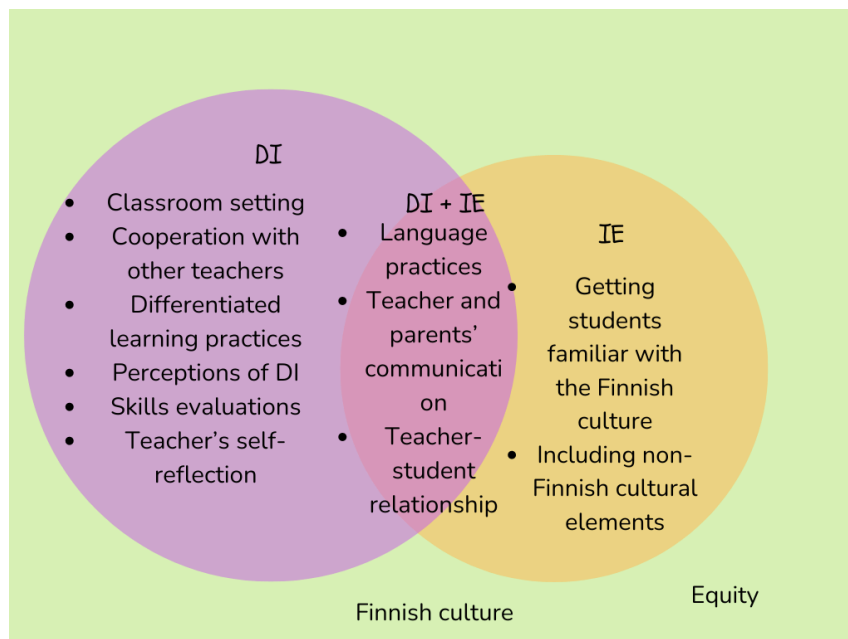
5 RESULTS

In this section, the findings of the study are presented. With the main research questions in mind, the three main themes of Differentiated Instruction (DI), Intercultural Education (IE), and the combination of DI and IE are presented alongside illustrative excerpts from the data. The names of the subthemes were inspired by the combination of Roiha & Polso's book (2020) on Differentiated Instruction in the Finnish classroom and Valiandes' et al. (2018) framework. The elements of DI are more dominant than those of IE, shifting the focus to more general cultural, multicultural, and intercultural elements and how some of those were combined with DI practices. Another notable observation concerns the Finnish culture; since the teacher comes from the Finnish culture, and the class -although bilingual and multicultural- follows the Finnish curriculum, the Finnish cultural elements are strong and affect how the subthemes are interpreted. It is worth noting that this interpretation happens from the viewpoint of a non-Finnish researcher. Lastly, an interesting element seen throughout the three main themes, which are aligned with the Finnish educational culture, is the value of "equity."

In Figure 3, the purple circle represents the DI theme, with its subthemes, and the yellow one is the IE theme. The overlap of these two circles represents the third theme; the combination of DI and IE. As mentioned above, since there were more elements found for the DI theme, the DI circle is larger than the IE. Finally, on the green background, the two elements of Finnish culture and equity are depicted since they pervade the interpretation of the data.

Figure 3

Representation of the themes and the main subthemes.



5.1 Differentiated Instruction (DI)

5.1.1 Classroom setting

A key element of DI is organizing the classroom environment to support differentiated instruction. This classroom, as depicted in Figure 2, featured adjustable desks, including three large rectangle desks for group work, six movable triangle desks, and couch areas for breaks or individual work. Chromebooks were available for each student, along with a screen for presentations and whiteboards for showing the timetable and notes.

The seating arrangements were flexible, allowing students to work both individually and in groups. From the observed lessons, it seemed that the seating arrangements were effective both for individual and group work. The teacher mentioned frequently changing the seating arrangements of the groups to promote cooperation with everyone and flexibility for change when something is not working. They also used a "circles of trust" system, where the "orange circle" was for students needing close supervision from the teacher (i.e., two students with hyperactive tendencies who got easily distracted and unfocused were the closest to the teacher's desk); the "yellow circle" for semi-independent work; and the "green

circle” for independent students, even allowing them to work in the corridor. This system worked effectively and kept the students focused on their work.

According to DI, setting clear and consistent rules plays an essential role in how the classroom environment is established. Although the students appeared to follow a classroom routine and rules, there were no clear displays of classroom rules on the walls. However, during the discussion with the teacher, it came up that this was their second year working with this group of students, and that there have been discussions about overall classroom rules on which they jointly agreed. The teacher verbally reminded them of the rules, often using stories. For instance, during a computer game, the teacher said, “Don’t be a sore loser or a sore winner, because then I will have to think if we are going to play this game again,” warning them with repercussions if they did not follow the rules. In this way, the teacher emphasized the importance of focusing on learning rather than competition.

5.1.2 Cooperation with other teachers

Another crucial element for effective DI practices was teacher collaboration. In the second grade, aside from the bilingual group, two additional groups are taught in Finnish by different teachers. All three teachers, along with Teacher Assistants (TAs), collaborate with the Special Education (SEN) teacher to develop optimal strategies and materials for students.

The classroom teachers jointly plan lessons and units to maintain consistency. The English-speaking teacher adapts the material by translating or using equivalent resources in English. The strong feeling of cooperation is further reflected in the classroom layout, where the three rooms are interconnected, allowing teachers, TAs, and students to move freely when needed. While each teacher manages their own class, during activities like a Halloween-themed lesson, all three teachers and TAs used a parallel teaching approach, setting up activity stations and giving students freedom of movement between classrooms to decide what activity to complete. This teacher collaboration provides students with consistency, the chance for all same-grade classes to work together, and a support system for the teachers.

The classroom teacher typically led instruction, while the TA provided support during independent work, moving around the room and assisting students

as needed. The TA offered differentiated help, focusing on students requiring more attention, though all students could ask for assistance by raising their hands. While the TA played an important role, the pedagogical responsibility remained with the teacher. Occasionally, the TA took the lead, especially when students returned from breaks to resume tasks assigned by the teacher.

Based on Finland's tiered educational support system, students needing more advanced support were referred to the SEN teacher. As the teacher explained in a second interview, they cooperated with the SEN teacher to create individualized plans, allowing students to work separately in the SEN room (a quiet place with suitable equipment) for additional help, a few hours per week. This system offered tiered support in practice, ensuring all students received the necessary assistance from both the teacher and the TA, with extra help provided when required.

5.1.3 Skills evaluation

How skills are evaluated is also largely affected by the DI philosophies followed in the school. In this section, the formative and summative assessment styles are presented as well as the way this school implements differentiation in learning by grouping the students into two major groups.

In the observed classroom, students were divided into two groups and further split into three color-coded sub-groups, each assigned to a different teacher. The two large groups are referred to here as Group A and Group B to maintain anonymity. This grouping occurs during Finnish and English lessons, allowing teachers to focus on smaller groups and offer additional support to group B. The categorization is based on a standardized writing test conducted by the special education teacher at the end of the first grade, focused on reading and writing comprehension in Finnish. The same grouping applies to both English and Finnish language lessons to avoid confusion for students and parents. The teacher noted that students do not need to know the details of this categorization at their age. Importantly, this grouping is flexible, with teachers regularly discussing whether students would benefit from switching groups. For instance, a reevaluation discussion had already been planned before the start of the next semester, so all the teachers were together to discuss and reallocate the students if needed.

The formative and summative assessments were identified throughout the observations and the interviews. The teacher frequently provided positive reinforcement and informal feedback. Standardized tests were used at the end of learning units, primarily as indicators of what students had understood rather than strict evaluations. For instance, during a math lesson on multiplication tables, students were informed about a test in advance, which was referred to as a “challenge” to which students had a positive reaction. Students who made errors were given opportunities to retake the test after additional study, aligning with the DI philosophy of promoting achievement for all. Although all the students were given the same test, some students were given a second chance to fix their mistakes and then a third chance after some time of studying to retake the test late. This aligns with the philosophy of DI; creating chances of experiencing achievement for every student. Furthermore, whenever the students had tests or did exceptionally well during a lesson, the teacher notified the parents through Wilma; a platform used by Finnish schools that allows the teacher and the parents to communicate- about pupils’ everyday progress.

More formal discussions and assessments also take place, as discussed in the interview. For instance, at the beginning of the spring semester, the teacher and the parents or guardians had the assessment discussions, to discuss in detail about the student’s progress. If necessary, the SEN teacher and school psychologist may join the conversation to offer additional support. In the second grade, students are not graded numerically but evaluated on of study and life skills with a pass, fail, or meet the goals partially remark. Grading criteria might differ between Finnish municipalities This skills-based assessment allows for a more descriptive, holistic evaluation of each student’s progress.

5.1.4 Perceptions of DI

The teacher’s perception of DI practices and the understanding of their students’ perception of DI also affect the teaching process, as well as how DI is normalized in the classroom. From the first interview, when the teacher was asked about the key values that they follow in their classroom, they emphasized their responsibility as teachers and the school as a whole to accommodate the needs of every learner with

additional care to students with learning “challenges”; values aligned with the DI philosophy.

“I want school to be enjoyable for everybody [...]we should have a place in school for every kind of student [...] be able to learn as they are. [...] I think it's our problem at the school then to kind of figure out how to answer different kinds of challenges that kids might have. But I think that we have to think that the problem is not the kids who might have some challenges learning something that's more us as a system (yeah). And we need to figure out ways to help those kids.”

When asked about DI, the teacher described it as "finding different ways to teach different children" and noted that it has become so immersed in their teaching style that it can even be "subconscious." That is evident also in the Finnish curriculum, where differentiation is encouraged. Although there is already some differentiated material, like the mathematics book (Rinne et. al, 2023) used in this class, the lack of resources for differentiation, especially in English was pointed out. Furthermore, the teacher underlined the importance of using DI practices and not one-size-fits-all techniques, and even more so in a classroom with students from a variety of cultural backgrounds:

“I think it's quite a must have thing in school nowadays we have all kinds of different students with different kinds of needs and the kind of I think already very old way of thinking that everybody should get the same umm same instruction is very outdated. And I think it doesn't doesn't work for most of them might work for some part there in the middle but kind of both ends of the curve will then be left with instruction that doesn't suit them. So yeah, I think it works nicely with it. And I think you need maybe a bit more of it with the multicultural or multicultural classroom.”

Additionally, it is important for the classroom environment how the students perceive this differentiation, in other words how the teacher explains to the students that some of them need different treatment. During the interview the teacher admitted that in the beginning, some students characterized differentiation as “unfair”, but soon they understood the reason behind it. The teacher used age-appropriate and understandable allegories like “the doctor doesn’t give the

same medicine to everybody” to justify at first and then remind them why different students might need different material, extra assistance, or even some different rules to learn. Moreover, all the students experience some level of differentiation at some point in their learning, making it easy for them to accept these practices and understand their value. This was usually a whole-classroom discussion, but in case of a stronger disagreement from the students, the teacher had a personal discussion with them. These discussions fostered a calm learning environment, allowing students to focus on their progress without comparing themselves to others.

5.1.5 Differentiated learning practices

A significant portion of the observations highlighted the differentiated learning practices in the classroom. This includes the different rules applied to some of the students, examples of differentiated material in subjects like Mathematics and English, how ICT is part of this differentiation, and examples of independent direction practice.

In more detail, the observation data indicated that the whole classroom was expected to be quiet and focused during the individual work and the teacher had placed a system for the two students in the class who were more hyperactive than the rest, the “red/green sticker”. To elaborate further, the two students were seated in the front of the classroom, so they were more approachable to the teacher and had one sticker, green from one side and red from the other; the green means that they are quiet, and the red that they are starting to make noise more than the appropriate. Their goal was to maintain the green sticker throughout the lesson to earn marks, with a reward after four marks, providing extrinsic motivation for focus. Although introduced to the whole class at first, the system remained for those who needed it. Additionally, the two students had rubber bands on their desks to release energy while concentrating.

The classroom observations were a great opportunity to witness how differentiated material can be implemented in teaching. In Mathematics, the teacher started the lesson by explaining and discussing the topic, then students were asked to work individually and ask for help from the teacher or the TA when needed. The exercises in the book were designed to be increasingly difficult, and differentiation

mainly occurred in the teacher's expectations, e.g., "at least all of the students to complete the first page" (see Appendix E). There was also an upward differentiation, allowing advanced students to work on the third-grade book, provided they required minimal assistance.

During English lessons, differentiation was achieved through grouping and varying the materials. As previously mentioned, students were divided into Group A (more advanced) and Group B. For instance, during a worksheet activity, group B received a list of common words to assist in forming sentences, while group A worked independently with more complex sentences. The teacher either adapted materials based on the Finnish curriculum or used resources from Twinkl, an online teaching material bank with differentiated worksheets.

As noted earlier, each classroom is equipped with Chromebooks, facilitating ICT integration. Usually, the teacher utilized ICT for extra practice or at the end of a lesson with new content; for example, practicing simple addition and multiplication tables as a fun competition with blooket.com, bamboozle.com, or villu.utu.fi¹. These websites allow the students to complete the activities at their own pace, and go through levels, while having fun but also the teacher to track their progress.

In addition to varying expectations, worksheets, and ICT, the teacher implemented other DI techniques such as reward lessons, lists, and "learning by doing." The class used a "reward jar" system, where following classroom rules earned stickers; once the jar was full, students chose the activities of a lesson as a reward. This method motivated students and gave them a sense of agency. During projects, students worked at their own pace, with some lessons dedicated to completing unfinished work using a list system. The teacher also employed hands-on learning activities, where the students learned by "doing" (in Finnish, "toiminnallinen oppiminen"). Particularly in later hours when younger students are more tired. For instance, during a science lesson on material categories (i.e., plastic, metal) and recycling, the teacher gave individual worksheets to the students to fill in. The students had to go to one desk that had a tray and roll the colored die, then

¹ Villu.utu.fi has been developed by the University of Turku, requiring that the teacher has gone through training and has a variety of exercises for Mathematics, Finnish, English, and programming based on the Finnish curriculum.

go to the respective color tray, pick up a card with a picture and word of an object, put it in the correct material category tray, and write it down on their worksheets. In this way, the students not only got to learn about the topic about also to move around in the classroom and enjoy the activity at their own pace (see Appendix F).

5.2. Intercultural Education (IE)

5.2.1 Getting students familiar with the Finnish culture

As mentioned above, one part of how culture is perceived and handled in the classroom by the teacher is to familiarize the students with the Finnish cultural context. The teacher acknowledged the fact that some of the students with different cultural backgrounds than the Finnish one might need more attention and effort to understand and become familiar with the Finnish culture.

Cultural awareness was demonstrated through the inclusion of Finnish customs and celebrations. For example, during PE lessons, Finnish students typically ski and ice skate in winter from a very young age, so the teacher made adjustments for students unfamiliar with these activities. Moreover, while discussing the school celebrations for Vappu (Finnish May Day), the teacher acknowledged that there are more Finnish celebrations compared to celebrations from other cultures. Omitting, however, strict religious elements from celebrations like Christmas and Easter, focusing on fun activities while maintaining some Finnish traditions to respect all religions.

5.2.2 Including non-Finnish cultural elements

In the first interview, the teacher acknowledged the strong multicultural presence in the class, defining it as: "...either that they have lived abroad or have parents that maybe have lived abroad or one parent is from somewhere else..". Of the whole class of 18 students, only two had both parents being Finnish and/or had never lived outside Finland.

Alongside the created safe environment it is important to note that the teacher expressed a positive predisposition for multiculturalism in the classroom during the interviews; "I think it's very interesting and at least it's really nice sometimes to have this" and "I think mainly it's a positive thing for sure" and with their teaching style

in practice. For example, during a lesson with traffic signs in Finland as the topic, the students initiated a discussion about unique signs they had encountered in other countries. It was clear from the first interview and the observed teaching that while the teacher did not initiate intercultural discussions, they created a safe space for students to express their cultures whenever they chose to do so, followed by a positively teacher-led discussion; "I think that's an important part is at least giving space to do that and giving space to tell about their own cultures and their kind of traditions when we have these sorts of discussions. I'm a little bit always weary of doing it in a positive way..." The teacher clarified that they do not want to be the ones to initiate a culturally specific discussion because they do not wish to make their students feel uncomfortable in case they do not want to share their experiences with the rest of the classroom. Recognizing this, the teacher reflected on incorporating more cultural discussions and noted that the Finnish curriculum allows space and possibly encourages such elements to arise. The teacher also made the point that due to students coming from different cultural and thus school backgrounds, differentiation is vital to cater to the needs of the students.

Beyond fostering a safe space for cultural diversity and expression within the classroom, the teacher and the school offer practices like multiple religion or ethics lessons and thematic days. In detail, to respect the freedom of religion, which is most of the times closely tied to celebrations, the school provides the option to students to choose religion lessons based on the main religions that the students follow; if none of them represent their beliefs, the students can follow ethics lessons. During the ethics lessons, students still learn the fundamentals of religion, but also discuss more general everyday topics. For example, one of the observed ethics lessons was focused on topics like sustainability, exercising, and following pedestrian rules.

Thematic days also allow for culturally oriented activities or connections between regular subjects and celebrations. Thematic days can be inspired by world celebration days, like the UN day, where the students drew their home-country flags and decorated the classroom with them. Another interesting observation was the Halloween-themed activities; all the grade 2 teachers planned some Halloween activities, some closer to the Finnish culture, for a couple of hours, allowing the students to dress up. This was a nice opportunity for all the grade 2 students to work

together on their chosen stations with different activities. Additionally, using a Halloween-themed color-in worksheet, the teacher worked on the students' writing skills.

5.3 Connections between Differentiated Instruction and Intercultural Education

5.3.1 Teacher-parent communication

As previously mentioned (see section 5.1.2), the teacher communicates with parents via Wilma or in-person discussions. Although the main communication between the teacher and the parents is focused on the formal and informal assessment of the students, the teacher also uses these channels to communicate possible behavioral issues that occur at school. For instance, when the teacher observed one of the students getting isolated and even getting into fights with the rest of the group during the breaks, they contacted the parents of the students involved to discuss this with their kids, and eventually, and resolve the issue. This highlights the importance of collaboration between parents and teachers in ensuring student well-being and maintaining a safe school environment. Additionally, the school hosts events like an annual forest trip, where parents, students, and teachers hike together, fostering stronger relationships.

5.3.2 Language practices

As noted earlier, the observed classroom had both English and Finnish as languages of instruction. Although English, Mathematics, and Science were taught in English and Finnish, Music, Art, Physical Education (PE), and Religion/ Ethics lessons in Finnish, the teacher was not strictly using only one of the languages during teaching. On the contrary, the teacher frequently engaged in translanguaging, especially in Mathematics, where instructions were given in English with key terms repeated in Finnish for clarity. For one Finnish-speaking student struggling with complex concepts, the teacher repeated full instructions in Finnish, ensuring no language barriers hindered understanding and allowing the students to learn the terminology in both languages.

Another observed example of utilizing both languages was a science lesson with forest berries as the topic. The worksheet (see Appendix G), created by the teacher, included a short text in English about forest berries and berry picking, exercises on vocabulary, reading comprehension, and scientific observations and measurements. This lesson was an interesting example of how the teacher composed a worksheet, with a topic very close to the Finnish culture and everyday life, since berry-picking is very common in Finland, but also considering the students with a non-Finnish cultural background. It also provided an opportunity to learn the names of the given berries in both languages and to conduct some basic scientific observations, following the principles of CLIL to integrate language acquisition and content learning.

The teacher also used both languages in the wall displays. On the one hand, the displays included the Finnish alphabet with the capital letter, the lowercase letter, and a picture of a word starting from that letter. On the other, there were posters with the English phonemes and word examples. There were also posters of the timetable, represented in pictures, and the date on the whiteboard. These materials provided visual support for students during writing and reading tasks.

During the first interview, the topics of bilingualism, multilingualism, and translanguaging emerged. The teacher emphasized the benefits of native Finnish speakers interacting with non-native speakers to practice language skills, and offered upward differentiation for fluent English speakers, thus factoring in the level of the languages when planning the differentiated activities. While open to incorporating more native languages, the teacher noted the potential risk of students relying on their mother tongue as a “safety net,” which can become a barrier to their progress in learning Finnish. Furthermore, there were not a lot of students with a common mother tongue.

“ I think for example I think for example with them sometimes there can be a little bit of benefit to let them use the Ukrainian language with each other but at other points it also can kind of be better to not have this kind of safety of going reverting to their own language”

The teacher also expressed concern about managing the classroom when students speak a language unknown to them, particularly during conflicts. Lastly, they also reflected on how language barriers might limit their full understanding of students' abilities, wondering if students would perform better in their native language.

“ I think it would be very nice to know more about their own kind of language resources and what what they're actually are they able to like ... I feel like we sometimes miss from the whole language context that what kind of resources they have in these other languages that they might know.”

5.3.3 The teacher-student relationship

A major topic of discussion that emerged during the first interview was the main values that the teacher has internalized and follows in their teaching and how these values create a safe environment for the students to express themselves and learn. This environment, in turn, enables the effective implementation of DI and IE practices. The teacher explained that they do not follow one specific pedagogical theory but base their teaching on values.

“I think key values that I have as a teacher are like I want school to be enjoyable for everybody I want there to be kind of fun when kids are in school but also that they kind of learn that's not all it's not always also fun sometimes.”

“Sometimes we might have some room for laughter and talking and this sort of stuff but other times there is no room for that and you have to be quiet and let everybody work in peace... in the curriculum I think it's said quite nicely that school's task is to also teach children to deal with small disappointments and that sometimes you know you can't get what you want within a classroom where there's 18 students and sometimes you might want to say something and you don't get the chance to say it, or this sort of stuff. So it's kind of have to keep a balance...”

In the interview, the teacher highlighted key values of fun, responsibility, and resilience. Their goal was to create opportunities for all their students to enjoy school while learning how to regulate their emotions when experiencing difficulties, disappointments, and compromises. “And kind of learning that everybody in the classroom is responsible for making sure that there is a nice environment to be no matter the situation...”

During the observation period, these values were clearly promoted by the teacher's example and it was evident that not only did the teacher embrace every student with their unique learning profile and cultural background but a new classroom culture was created. In this classroom, the culture was based on having space for everyone to experience achievement and joy but also practice responsibility. The teacher built this classroom atmosphere, by first focusing on creating a deep and trusting relationship with every student individually. During the questions about the seating arrangements, for instance, it was clear that the teacher was very confident that they had a deep knowledge of the students' characteristics and needs: "I feel like I've got quite a good grasp on the like, I know the children quite well". The fact that that was the second year with this group of students also added to the trusting relationship between them. Lunchtime provided another opportunity for quality time between the teacher and students, with informal conversations about students' interests and families taking place; gathering important information for showing cultural awareness and planning differentiation.

"...the lunch is one of my favorite pedagogically one of my favorite parts of the school day... you can talk a little bit more casually and you learn a little bit learn to know the kids quite nicely and I think that's something that I kind of aim to do always with every student. So I want I want to know about their hobbies and their families and this sort of stuff because I feel like it can help them then the kind of connection here in school."

Lastly, it is worth noting that the students addressed the teacher and the TA by their first names. This might not be that usual in other contexts, but in a Finnish classroom, it is common to call the teacher by their first name or "ope" which means teacher in Finnish. While this might be perceived as disrespectful elsewhere, the teacher emphasized that respect is earned through rational decisions and strong connections, not authority "...have to earn from the students and I think the best way to earn it is to be kind of rational and make decisions that the students can understand." Moreover, this adds to the teacher's aim to be approachable to the students. Some non-Finnish students struggled with this custom, requiring the teacher to explain the Finnish context in one-on-one discussions.

6 DISCUSSION

6.1 Summary of the key findings

This exploratory case study aimed to observe, document, and understand how a teacher in Finland, with CLIL and English language teaching background, follows differentiated instructional practices in a multicultural classroom with intercultural competencies, and if these can be blended to form “interculturally differentiated instruction” practices. The data collection and analysis drew on three main theories, namely Differentiated Instruction (DI) (Roiha & Polso, 2021; Tomlinson, 2014), Intercultural Education (IE) (Banks, 1993; Rissanen et al., 2016), and their combination (Alenuma, 2012; Valiandes, 2018). DI elements were more dominant, with Finnish cultural aspects significantly influencing interpretations. Key aspects of DI included classroom setting, differentiated teaching methods, seating arrangements, teacher collaboration, and tiered support systems involving special education teachers and teacher assistants. Skills evaluation involved both formative and summative assessments with flexibility in grouping students. The teacher's perception of DI emphasized accommodating all learners' needs. At the same time, IE focused on familiarizing students with Finnish culture on the one hand and expressing non-Finnish cultural elements on the other. The combination of the two theories was present in the cooperation between the teacher and the parents, creating the school community, and the language practices, and mainly in the cultivated teacher-student relationship and the overall classroom environment.

6.2 Interpretation of the key findings according to previous research

The practices followed by the teacher in the classroom were a great example of how Roiha and Polso's (2021) 5D model could be translated into practice. The 5D model consists of the teaching arrangements, learning environment, teaching methods, support materials, and assessment. Regarding the teaching arrangements, it was essential for all second-grade teachers to collaborate in the lesson planning with the TAs and the SEN teacher. Another differentiated arrangement was the grouping technique (Tomlinson, 2001), where the students were split into groups A

and B for the language lessons; Finnish and English, based on their reading and writing comprehension skills. This allowed for more easily organized differentiation, as the teacher differentiated the material into only two large groups and not for every student. However, the teacher differentiated their instruction or material for a specific student when needed. For example, providing visual aids for a student with difficulties in numeric literacy (Tomlinson, 2001). Other differentiated teaching methods included reward lessons, where the students got to choose from given options what they wanted to do; individual task lists, in which students had to complete their unfinished work; and “learning by doing” activities, during which the students were encouraged to complete tasks and worksheets by moving around the classroom to different working stations. The teacher also used more methods accompanied by support material tiered exercises in the Math book, alongside the TA’s assistance and the English worksheets, where one group got extra material to assist with writing comprehension. Another observed aspect of the 5D model (Roiha & Polso, 2021) was the assessment and skills evaluation; apart from the standardized writing and reading comprehension test at the beginning of the year to form the two groups for Finnish and English, there was also formative and summative assessment. The teacher communicated often with the parents to let them know about their children’s progress in school. Lastly, another major aspect of how the differentiated instruction practices were observed in the classroom was how the learning environment was set. The psycho-social learning environment consisted of the classroom routines and the rules, which were differentiated, for instance, the more hyperactive students had clear rules for staying in place during the lessons and had a red/green sticker, that reminded them when they were not following the accepted behaviour. The physical environment included the seating arrangements, the furniture, the equipment, and the displays. One interesting practice was the “circles of trust”, where the students who needed more assistance were placed near the teacher, and the ones that could work more independently, could be further from the teacher.

It is worth mentioning that the displays were mainly the alphabet in both English and Finnish, alongside some examples, and sight words. These displays were under the philosophy of CLIL, which usually calls for displays in both the

mainstream and target languages (Montalto et al., n.d.). This bilingualism during a lesson was encouraged in lessons like science, where the terminology was given in both English and Finnish integrating language and content learning. On some occasions, such as during the Math instructions, the teacher did not hesitate to change between English and Finnish to make sure that all students understood the instructions (Bauer-Marschallinger et al., 2021; Siepmann et al., 2021). Translanguaging was a common practice throughout Finland that allowed for blended differentiation and CLIL (Meyer, 2013; Roiha, 2014). Although the teacher appeared open to allowing students to utilize their mother tongue, concerns of not being able to manage the classroom or of potentially slower progression of the students' Finnish and English language acquisition arose. It would be worth examining if following more translanguaging methods, like having more displays in other languages, would help students with Finnish as their second language.

One key finding is that the DI elements were very clear during the data collection, yet the IE elements were not as evident in both the IE and the blended theories theme. The teacher did not consciously follow the key elements of IE such as content integration, knowledge construction, empowering school culture, equity pedagogy, and prejudice reduction, as described by Valiandes et al. (2018). The teacher did not initiate intercultural discussions or plan lessons to cultivate intercultural competencies. They rather focused on familiarizing non-Finnish students with the Finnish culture and creating a safe space where the students could express and celebrate their cultural backgrounds with their initiative. After reviewing Finnish educational policies and curricula, Dervin et al. (2012) and Holm and Londen (2010b) concluded that although the Finnish national curriculum promotes equity and non-discrimination policies, the classroom reality differs. They argue that the non-Finnish students are considered immigrants and learn about the Finnish culture, whereas the Finnish students practice "tolerance" towards their non-Finnish peers. Holm and Londen (2010b) accredited this to the lack of material that promotes intercultural competencies and suggested moving forward from immigrant integration practices to a critically intercultural educational approach. Dervin et al. (2012) agreed with the critical thinking approach and added the aspect of "glocal" (p. 8), a mixture of global and local competencies. In other words, they

recommend open-ended activities where the students can learn local, global, and “glocal” competencies. This can be achieved through lessons that allow for intertextuality. For example, an intertextuality art lesson provides the chance for the students to work on various identity perspectives, stimulating their intercultural competencies by suggesting methods to explore the development of practices, interpretations, shared perspectives, and cultural heritage.

Moreover, expressing culture was associated with religion or ethics lessons and school celebrations. The teacher considered cultivating respect for other religions as closely linked to cultivating respect for other cultures. The teacher also pointed out that the school mainly celebrates Finnish traditions without a strong religious character, but rather a more neutral one. Rissanen et al. (2016) found similar results advocating that the neutrality on cultural and religious matters often followed in Finland deepens the gap between the cultures. To overcome this, further teacher training to cultivate self-reflection, empathy, and cultural and religious sensitivity is recommended. The goal is for teachers not only to tolerate the different cultures in their classrooms but to embrace them. Yet again, the emphasis is on nourishing a critical approach to teaching methods.

The finding that the mixture of the DI and IE theories and the Interculturally Differentiated Instruction practices were not that evident has been observed in earlier literature. Notably, researchers Neophytou et al. (2018) followed the same blended framework (Alenuma, 2012) and showed aligned findings. Through a case study with teacher interviews and classroom observations in Cypriot schools, it was obvious that the implementation of the framework did not reach its full potential but remained at the surface level. Although the teachers enriched their methods, the application was not consistent and continued, but piecemeal, resulting in catering to the students in the “middle”. To rise above these barriers, the authors suggested the teachers undergo further intercultural professional development, aligned with the teachers’ ethical orientation and efficiency.

It is essential to highlight that although the intercultural aspect was not as strong as the differentiated practices, the teacher still managed to provide a safe classroom environment by building a safe classroom culture. The teacher catered to the physical and emotional needs of the students as categorized by Maslow and

explained in Tomlison (2014). The teacher stressed the importance of gaining their students' respect, being approachable, and spending time to get to know each student even outside the classroom (Claessens et al., 2016). The teacher gave the example of interacting positively with the students during the breaks as a means to cultivate a supportive classroom environment. In this environment the students can freely explore learning (Beach & Strijack, 2020), by using meaningful to them material (Tomlinson, 2014). The teacher and the TA are there to support their students in various ways, so they can reach their full potential, as Vygotsky describes in his theory; the Zone of proximal development (Subban, 2006; Valiandes, 2015). The teacher encouraged their students to have a growth mindset and explore their creativity (Tomlinson & Imbeau, 2010) with practices like learning through projects. The importance of having a balance between fostering responsibility and allowing space for having fun in the classroom was also brought to the attention of the teacher.

In addition to building strong and trusting relationships between the teacher and every student, collaboration with the other teachers and the parents was of utmost importance for elevating the already collaborative classroom culture. The collaborative relationships were consistent with Roiha and Polso's (2021) 5D model. Collaboration between the same grade teachers was essential to maintain continuity and allow for students to move groups within the grade depending on their learning progress. Moreover, the TA proved to be of the most importance, as their presence allowed for more differentiated learning; students who needed additional support could seek it from the TA while the teacher was giving general instructions. If needed, the teacher would then discuss with the SEN teacher and arrange for the students to get further assistance in the specially arranged SEN rooms. Furthermore, the teacher had consecutive communication with the parents. The parents would get informed about the everyday progress of their kids and have also one or two official meetings with the teacher to discuss their kids' progress based on the grade-level criteria, decided by the municipality.

6.3 Limitations

The combination of interviews, observations, and gathered material allowed for triangulation of the collected data. While this triangulation increased the present study's reliability, limitations also existed. One limitation is that since it is a case study with one interviewee and observations from one classroom, there is no generalisability (Tracy, 2013). Other limitations concerned the nature of collecting data from a classroom, which is an unpredictable environment. For instance, although the original plan was for two weeks of observations, adjustments had to be made when the teacher had to go a few days on sick leave. Moreover, observing in a classroom meant showing a willingness to explore emerging data and not staying completely focused on the original framework. Therefore, changes had to be made to the framework during the data collection. For example, emerging elements such as the CLIL and translanguaging practices, as well as the significance of the teacher-student relationship and the principles of fun and responsibility that shaped the classroom environment had to be considered as main elements of the observations. Despite its limitations, this study paves the way for future research on how IE elements can be enhanced in classrooms that are already implementing DI practices; either in similar classrooms in different Finnish municipalities or other in countries, considering necessary modifications based on the context.

6.4 Conclusion and theoretical and practical implementations

This study confirms previous findings from policy reviews, curricula, and observations from classrooms in the Finnish context regarding the widespread practices of DI but also the deficiencies in IE implementations. It also verifies similar results in other contexts such as in Cyprus. It is an opportunity for teachers and stakeholders to further explore this gap between the theory and practice of IE implementations. It would also be beneficial to inquire about blended frameworks in more contexts to understand better how IE and DI can be effectively and realistically implemented in a classroom. Would a more simplified version of the blended framework be easier or make it more realistic to be implemented by teachers and investigated by educational researchers?

On a personal level, this study allowed me to dive deeper into DI and IE practices that I consider essential for my future as a teacher. I hope this study will also provide other teachers with meaningful and useful teaching tools and practices for mixed-ability, multicultural classrooms and inspire them to incorporate them in their teaching methods.

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APPENDICES

Appendix A

List of questions for the first interview.

Possible order of questions:

Opening:

- How many years have you been teaching?
- Why did you become a teacher?
- What do you like about teaching?
- What theories inspire your teaching/your lessons/your teaching practices?

Main:

- How would you describe Differentiated Instruction?
- Would you say that you differentiate your teaching? In what ways?
- How do Differentiated Instruction practices fit in with the Finnish educational system and curriculum?
- Do you have students from different cultural backgrounds and different native languages?
- How do you address students' cultural diversity in your teaching?
- Are the students allowed to use their native languages in school, or even during the lessons?
- How would you describe Intercultural Education?
- Does the Finnish curriculum leave space for incorporating elements from other cultures?
- Do you incorporate elements from different cultural backgrounds into your Differentiated Instruction? How?
- Do you see intercultural aspects of education working well with differentiated instruction? How?/How do they work in your class/lessons?
- What (else) do you usually take into account when planning your lessons?
- What is working with another teacher in the classroom like?

Closing:

- Is there something you feel I should have asked? Is there something else you'd like to share or add to our discussion?
- Do you have any questions for me?

Appendix B

List of questions for the second interview.

-Thank you for agreeing to meet with me today and have this interview. In general, thanking for taking part in my research and allowing me to observe in your classroom. It has really been a great experience for me as a teacher and as a researcher! So, today I have some follow-up questions. The aim of this interview is to hear and record your thoughts on some of my observations so as to help me better understand and interpret my data.

Physical classroom and Displays:

1. How would you describe the physical classroom environment, such as the labeling (desks), workstations, decoration, and displays on the wall?

(Follow up: How do these help you with your teaching? I noticed that there are in English and Finnish, would you consider adding displays from other languages?)

2. I noticed some students are in groups and some at individual desks. How do you decide the seating arrangements? (Does this change throughout the school year? What role does the furniture play in this decision? Is there anything else that you would like to have in your classroom?)

Socio-emotional:

In the first interview, you talked about providing your students with “a nice environment no matter what” and you mentioned that you leave space for humor and responsibility.

3. How is that reflected in your classroom rules? How did you establish them in the first place? (You mentioned that this is the second year you have this class, so did you have a discussion when you started working together?)

4. How do you deal with students who don't follow the rules? (how do you reward the ones who do?-for example nice behavior, doing homework)

5. What is the importance of routines in the classroom? Do some of them need more time or any additional help to understand/remember them?

(Follow-up: I noticed two students having red/green stickers on their tables to monitor their behavior. Could you elaborate a bit more on that? (How does the rest of the classroom react to this differentiation?)

6. How do students perceive that there might be more differentiation for some of the students? (for example, some students are allowed to use extra help in Maths- like the multiplication tables)

Teaching arrangements:

7. In the 1st interview, we talked a bit about the collaboration with the other teachers and the TAs. Could you tell me a few things about the role of the TAs in your classroom? (Do they work only with kids that need extra help? Are they part of the lesson planning?)

8. How does your collaboration with the SEN teacher work? (Do you plan activities together, any of the students going to their classroom for some hours/week?)

9. You mentioned that one of the students is advanced in Maths and does the 3rd grade textbook. How does that work? (is this something common?)

Teaching methods:

10. What flexibility or room for choice is there for students concerning learning methods? (Are there subjects/ topics where they can choose their learning methods?)

11. One DI method that you use in the school is the two groups. Can you tell me more about that?

-How do you categorize students into these groups? What are the criteria?

-How do you split them into the colour groups later?

-Are they the same groups the same for English and Finnish? (Why?)

-Can students change groups based on their performance? (if yes, how?, if no, why?)

12. During my observation, for example the Halloween monster, we discussed about the working stations and the importance of moving around the classroom. You said there is a Finnish word for this. Can you repeat it? Why do you think movement is so important for the students? (How does it help their learning?)

13. In the 1st interview you mentioned giving space for the students to express their cultural backgrounds whenever they wish to do so. How do you create a safe space for that in your classroom?

14. In our first interview, you noted that: "it could be a nice opportunity since there are so many people from different cultural backgrounds to have something more about their own backgrounds, but we haven't really had so far". However, with the Halloween celebrations, the UN day and the flags, even the Finnish berries, there seem to be cultural elements in your teaching. What are your thoughts on this? What other future cultural activities could you have in your teaching?

15. What topics are discussed in the ethics lesson, and do you think there is room there for cultural discussions?

Assessment:

16. How do you formally assess students? (for example, standardized tests at the end of the semester? how about grades at the end of the school year?) How do you communicate your assessment practices to the parents?

-Lastly, I would like to thank you again for your time and participation in my research.

17. Is there anything else that you think I could have asked? Would you like to add something?

18. Do you have any questions for me?

Appendix C

The catalog with the collected data.

Interviews:

1st interview	Audio file	transcription
2nd interview	Audio file	transcription

Observations- notes:

number	date	page/day	Short description
1	23.10	1	Finnish group B,
2	23.10	2	Maths,
3	23.10	3	Finnish (all)
4	23.10	4	Music, Finnish group A
5	24.10	1	English group B
6	25.10	1	Finnish group A, maths
7	25.10	2	Maths, crafts
8	25.10	3	religion/ethics, Finnish group B
9	26.10	1	Science
10	26.10	2	Science, crafts
11	26.10	3	English (all), English group A
12	26.10	4	notes
13	30.10	1	Finnish group B
14	30.10	2	Halloween lesson
15	30.10	3	Maths, music
16	30.10	4	Finnish group A
17	13.11	1	Finnish group B, maths
18	13.11	2	Finnish (all), movie
19	14.11	1	Maths
20	14.11	2	Discussion about grading, maths

21	14.11	3	English (all)
22	14.11	4	English
23			discussion
24			Potential questions
25			Project and assessments

Materials:

number	topic	Short description
26	English	phoneme "ch", phonics, Twinkl
27	English	phoneme "ch", phonics, Twinkl, phoneme spotter story
28	science	Food from forests: berries, worksheet, teacher
29	Mathematics	math-challenge
30		mathbook_content
31		mathbook_cover
32		mathbook_p.56-57
33		mathbook_p.58-59
34		mathbook_p.84-85
35		mathbook_p.84-85
36		mathbook_p.84
37		mathbook_p.85
38		mathbook_p.86-87
39		mathbook_p.86
40		mathbook_p.87
41		mathbook_p.88-89
42		mathbook_p.90-91
43		mathbook_p.116-117
44		mathbook_p.119
45	science	science_materials1

46		science_materials2
47		science_materials3

Photos of the classroom

number	title
48	classroom_layout1
49	classroom_layout2
50	classroom_layout3
51	classroom_layout4
52	classroom_layout5
53	classroom_layout6
54	classroom_layout7
55	books_corner_levelled
56	computers
57	extra_help_math
58	screen-modeling
59	sink+drawers

Appendix D

For reasons of maintaining the anonymity of the participant, here is the last page of the privacy notice that was given to the teacher.



Consent form

I have been asked to take part in the study: "Combining Differentiated Instruction with practices from Intercultural Education: An exploratory case study from a Finnish classroom".

I have read and understood the information given above. I have received sufficient information about the study. The researcher [Georgia-Vereniki Nanou] has also talked to me about the study and responded to all my questions about it.

I understand that participating in this study is voluntary. I have the right, at any time during the study, to cancel my participation in the study. I do not need to give any reasons for cancelling my participation. Cancelling my participation will not result in any negative consequences for me.

Yes, I will participate in the study.

Date

Signature of the research subject

Name in print

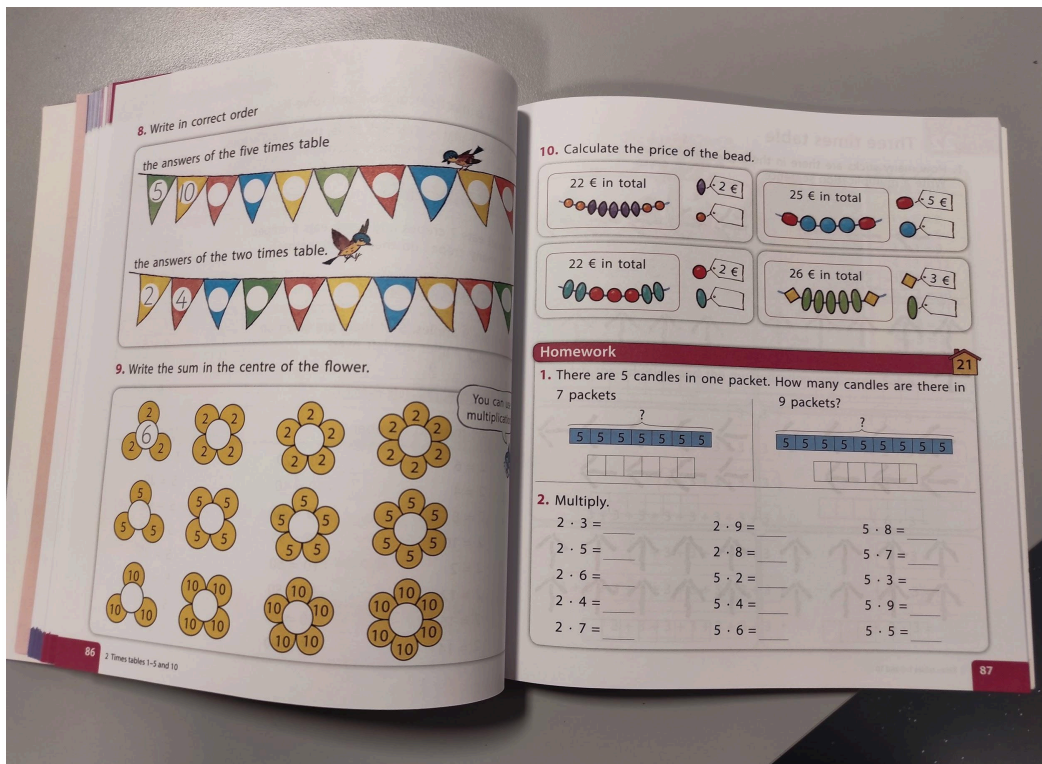
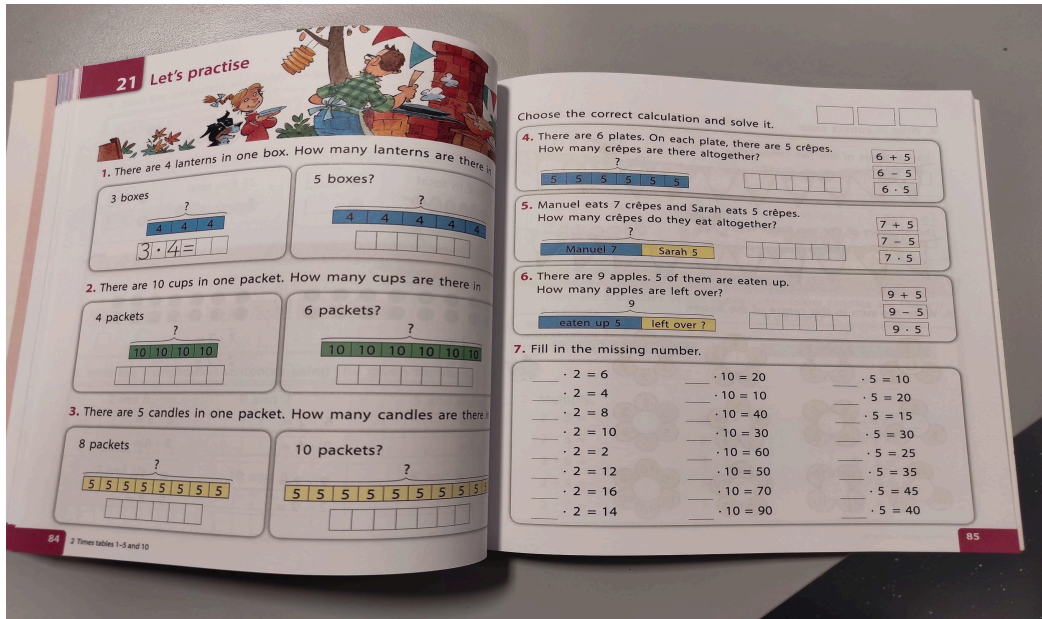
Signature of the researcher

Name in print

Appendix E

Differentiation example from Math Book

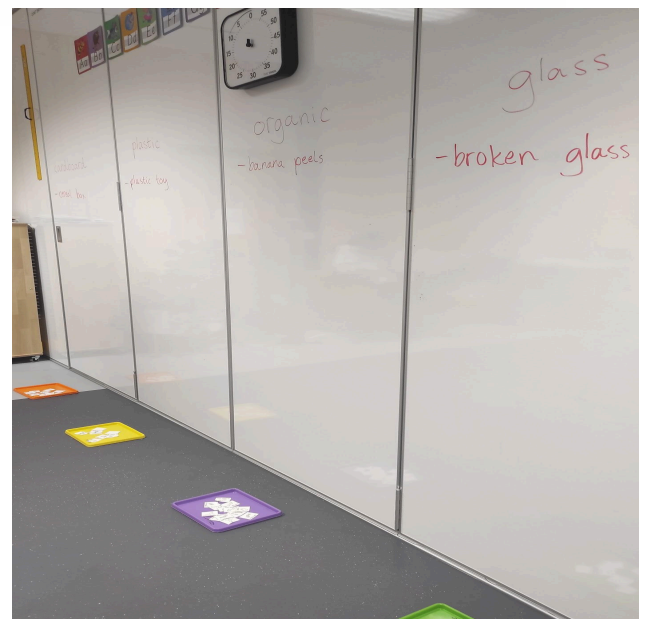
Here is chapter 21, pages 84-87 from the Math book, where it includes increasingly more advanced exercises and the homework activities at the end.



Appendix F

“Learning-by-doing” activity: learning about recycling and materials

During this activity, the students randomly took pieces of paper with the picture and the name of the object and had to put the paper in the right tray in front of the white board to fill-in the worksheet by writing the name of the object-picture in the right category.



Sort the items into the correct boxes.

organic waste	metal	paper
cardboard	plastic	glass
! HAZARDOUS WASTE !		

Appendix G

Science worksheet: Berries

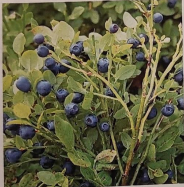
During this Science lesson, the students had to work on the presented worksheet. The worksheet included reading comprehension in English, vocabulary exercises in both English and Finnish, and an exercise where students had to take measurements using their rulers.

Food from Forests: Berries


Blueberries and lingonberries grow in forests. Raspberries grow in open areas with lots of light. Cloudberries and cranberries grow in wet areas such as swamps.

Some berries are poisonous. They are dangerous for humans to eat. You should only pick up berries, that you can recognize.


Berries are healthy. They have a lot of vitamins.




blueberry




lingonberry



raspberry



cloudberry



cranberry

1. Observe the blueberry stem and answer.
 1. Colour of the leaves: _____
 2. Size of the leaves: _____ cm
 3. Length of the stem: _____ cm
 4. The leaves are: *thick* / *thin*

2. Write the Finnish names of the berries on the previous page.

karpalo, mustikka, vadelma, hilla (lakka tai suomurain), puolukka

3. Why can't we eat all berries?

4. Colour and name the berries on the other sheet.