Exploring Maltese teachers' dispositions to practise digital equity in the classroom.

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Submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy

The Faculty of Education

University of Malta

May 2024

L-Università ta' Malta

FACULTY/INSTITUTE/CENTRE/SCHOOL OF EDUCATION

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02.2023

Abstract

Dispositions are predicative of future performance and the COVID-19 pandemic provided an authentic context where teachers could develop their dispositions towards the innovative use of digital technology.

It is the aim of this study to investigate the teachers' dispositions, their beliefs and strategies to facilitate digital equity and inclusion in multicultural classes, when they (1) recognise the students' differences in digital access, (2) use digital technology for teaching and learning and (3) facilitate inclusive practices to integrate all students.

32 primary class teachers from different localities in Malta participate in this case study, 11 in the narrative scenarios and 21 during the online semi-structured individual interviews. Teachers share their beliefs and strategies on the use of digital technology during the suggested four narrative scenarios. During the interviews, teachers discuss their experiences when using digital technology in diverse classes. They explain why they use digital technology and how they believe students learn best. Teachers describe how they try to understand the students, and how in their role as a teacher they strive to mediate the values of society especially by promoting inclusion and integration.

The metaphor of the educational ecosystem is used as a framework to interpret the data from the narrative scenarios and interviews. It provides a lens to view the opportunities and challenges, the teachers encounter by the three ecosystem's levels; the macro, the meso and micro levels. Data was thematically analysed and the determinants which influence the teachers' dispositions identified. These include the digital affordances to learn and live together during the COVID-19 pandemic, the school support in delivering special activities in heterogenous schools, the teachers' expectations from the parents in forming partnership through the social media and the student's diversity and uniqueness in acting as brokers between the school and home. Throughout this process the teachers' dispositions evolve from the disposition to care, to interact mutually, to give personal attention and finally to include all students.

Recommendations for future research related to the identified teachers' dispositions are suggested.

Keywords: teacher's dispositions, student diversity, digital equity, multicultural classrooms, inclusion

Preface

In 2010 I relocated from Malta to Sweden and since education is the focal point of my familial and professional life I was looking forward to experience a new education system with my children. As a migrant mother and teacher, I had the time and opportunity to live close to my children and share with them their learning experiences in the new country. A new world which consisted of a new language, new friends and new ways of learning and doing things.

My experience as a teacher and a migrant mother compelled me to further explore my learning experiences in the new country and to share and discuss with other parents, teachers, headteachers and friends my research idea, about my aspirations of using digital technologies for inclusion. As a migrant mother I was encouraged to take this research challenge, however, I did not receive the same support when I shared my research proposal with various universities. Understanding only came after I came across the statement, that "people tend to identify with situations that help them to a greater extent understand themselves" (Freire, 1972, p.23). I realised that maybe my migrant friends and educators could see the problem from its practical perspective and could identify with the situation. They could see that technology could help them make better connections and encourage further participation.

I remember during one of our first parent's meetings, my child was asked by his teacher, who he will refer to if he needs help. His immediate reply was: "my teacher, my mum and the computer". Throughout these years, I realise how important technology was and still is for my children to achieve their educational goals and how important it is for the teacher to use it effectively. I felt that keeping contact with teachers was important. However, language was a barrier, an illiterate situation where one cannot communicate the expectations of both the teacher and the parents. As a result, I repeatedly used the Google Translate application, even though the translations were not always right and I had to ask for further clarifications. This situation delimited my parental involvement and frequently my children were required to act as brokers, translating and explaining what the teachers meant to say.

At home I could work with my children on the school topics. We could catch up with and understand the work done at school as we googled through the websites for further understanding. These topics provided a springboard from where we could discuss our native cultural experiences in relation to the local ones, comparing how similar and different things were done in the new country. Additionally, the daily practice of online reading was an important exercise since we could hear the new language, the actual sounds of the words in our family environment. Learning how to pronounce the words well was a very important exercise which laid the foundation for writing the language. I recall an experience when my son was not doing well in his dictations and I explained to the teacher

that we had been studying. During our school meeting my son stated that when helping him with his study I pronounced the words wrong, therefore he could not write the words properly. Consequently, the teacher suggested that she will send her own recording of the words to make studying easier and my son could practice with the right sounds of the words at home.

The use of digital technology during school activities gave us parents the opportunity to socialise with other parents and learn about various cultural backgrounds. Using PowerPoint presentations made it easier for all to understand the talks that were generally held in the local language. These activities helped in accepting diversity and see the positive side of being different. Also, some parents considered the seamless way my children were achieving their education from different countries as positive, as an opportunity.

Having gone through these experiences, in this research I would like to find out more about teacher's dispositions to facilitate equitable digital practices in multicultural classrooms. The teachers' dispositions which unintentionally were investigated during the COVID-19 pandemic, the extraordinary time were existing inequalities might have deepened. Starting from my own experiences as a migrant, towards a more general understanding of the educational situation of migrant people.

Acknowledgements

In our lives we daily encounter challenges and opportunities, and I believe that it is how we react to these circumstances that make the difference. My main challenge during my doctoral journey was the COVID-19 pandemic, but then it turned out to be a blessing in disguise since some teachers were more inclined to use digital technology to remain connected with their students. Thus, I am grateful to the teachers, students and parents who participated in this study. Without their contribution in sharing of experiences, the new knowledge discovered in this study would not have been possible.

I want to thank my previous supervisor, Shu Nu Chang Rundgren from Stockholm University, who during my Masters' degree suggested that I could publish my articles and continue with my doctoral studies. Without her intervention, it would never have crossed my mind to try.

I am mostly grateful to the late Professor Sultana from the University of Malta, who instantly believed in my proposal and introduced me to my supervisors, Professor Philip Bonanno (Principal Supervisor), Professor Colin Calleja from the University of Malta, Professor Hannele Niemi from the University of Helsinki and Professor Sirkku Männikkö Barbutiu from Stockholm University. I am honoured to have been working with you and grateful for the advice and support you provided as you challenged me along this journey.

Further, I would also like to thank all my friends who supported me throughout my doctoral studies. To mention a few, Barbro Wallhäger, Catalina Calderon Åhgren, Charmaine Sammut, Mariella Hoekstra and Eleonora Cutajar.

Finally, I would like to extend my special thanks to my family, my husband and my children for their patience and understanding in giving me the space and time to work on my thesis.

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Chapter 1. Introduction and the Maltese context

The study investigates Maltese teachers' dispositions to facilitate equitable digital practices with students in multicultural classrooms.

The presence of migrant students in schools influence the education system of the receiving country creating a challenging situation for the teachers who try to engage all students in their learning (Emert, 2014; Johnson, McHugh, Eagle & Spires, 2019). The use of digital technologies could be the means through which learning can be achieved in multicultural classrooms considering their ubiquity, across all income levels and racial backgrounds (Lawless, 2016; OECD, 2015b; Redecker, 2017; Spiteri & Chang Rundgren, 2018a, 2018b; UNESCO, 2011).

However, during the COVID-19 pandemic, when this research was being carried out, not all the students thrived during the online lessons. Their absence from lessons during the pandemic resulted in vulnerable students lagging behind or leaving school altogether (Bonnici, 2020). Several teachers were left at loss on how to connect with all students, a global situation which no one was prepared for (Pešikan, Niemi & Devetak, 2021). In Malta the negativity towards this situation was further illustrated in the heading of an article in a local newspaper, stating "Teachers challenged by virtual truants and digital drop outs" (Arena, 2020). These students were instantly negatively labelled as 'truants' even though the article further highlighted some of the reasons why these students were behaving in such a way.

During the online lessons, immigrant students in particular, experienced greater learning disadvantages. It was claimed that migrant families tended to possess less resources than the local families to help their children in their homework. Additionally, 40% of native-born immigrant students' parents did not speak the local language (OECD, 2020). Migrant students might have been living in small crowded spaces with lack of communication to the local community and no access to digital technology and the Internet (OECD, 2020). Within these circumstances, some teachers might have lacked the knowledge and skills or held certain beliefs which influenced their actions on how to provide support for these students. As a result, the teachers' dispositions, their beliefs and actions (Villegas, 2007) to use digital technology for the continuation of the students' learning influenced their connections and engagement with the students. Consequently, it is critical to investigate the teachers' dispositions, their beliefs and actions (Villegas, 2007) to use digital technology equitably for the inclusion and continuation of all the students' learning.

1.1 Research problem

The rapid integration of digital technology into education has underscored the importance of addressing digital equity, particularly in multicultural classrooms. In Malta, a nation which of late is characterised by its rich diversity, teachers face the challenge of ensuring equitable access to digital resources while addressing the unique needs of multicultural student body. The COVID-19 pandemic highlighted and exacerbated existing inequalities, as some students lacked the resources, the skills, or support needed to thrive in online learning environments. Teachers were often unprepared to mitigate these challenges, revealing a critical gap in their dispositions and practise towards fostering digital equity and inclusion.

1.2 Rationale

Digital equity is not merely about access to technology but encompasses the effective and inclusive use of digital resources to support diverse learners. Teachers' dispositions – shaped by their beliefs, attitudes, and professional contexts – play a pivotal role in addressing these challenges.

Understanding how Maltese teachers navigate these complexities is vital for informing policies and practices aimed at achieving inclusive education. This research is timely and significant, as it explores the interplay between teachers' dispositions, digital equity, and multiculturalism within the Maltese educational ecosystem. By investigating these dynamics, the study aims to contribute to the development of more effective strategies for teacher preparation and professional development.

1.3 Research aims and objectives

This study seeks to investigate the dispositions of Maltese primary school teachers as they facilitate equitable digital practices in multicultural classrooms. The overarching aim is to identify the opportunities and challenges that influence their beliefs and actions in promoting digital equity.

Specifically, the study aims to:

1. Identify the systemic, institutional, and personal factors that shape teachers' dispositions towards digital equity.
2. Explore how teachers recognise and address differences in digital access among students.
3. Examine teachers' strategies for leveraging digital technology to support learning and inclusion.
4. Analyse how teachers foster inclusive practices that integrate students with migrant background and their families.

1.4 Significance of the Research

This study holds significant importance as it examines the interplay between teachers' dispositions, digital equity, and multiculturalism within the Maltese educational system, particularly in the context of the challenges brought about by the COVID-19 pandemic. The investigation is set within a unique Maltese context – a nation with a rich yet complex history of colonization, migration, and cultural diversity. These elements influence societal attitudes, educational policies, and teaching practices, making the Maltese setting a microcosm for understanding broader issues of equity and inclusion in education.

The research contributes to addressing how teachers in primary schools navigate the practicalities of using digital resources to bridge disparities in multicultural classrooms. As digital education becomes increasingly integral to education, the findings from this study are expected to provide actionable insights for policymakers, teacher education programmes, and school leaders aiming to promote inclusive practices. By focusing on the interconnections between systemic, school-level, and classroom-level influences, the study also advances the conceptual framework of the educational ecosystem, emphasising how different levels interact to shape teachers' dispositions, their beliefs and practices.

Moreover, this research highlights the critical role of teacher dispositions in fostering inclusion and equity through digital technology. Dispositions – encompassing teachers' beliefs, values, and actions – are instrumental in how equitable opportunities are created for all learners. The findings will offer practical recommendations for teacher preparation and ongoing professional development to ensure that digital tools and strategies are employed effectively to benefit the learners with migrant background.

1.5 The gap in literature

The study addresses a notable gap in the existing literature: the limited research on teachers' dispositions towards practicing digital equity in multicultural classroom settings, particularly within small, diverse nations like Malta. While previous studies have explored broader issues of digital equity or multicultural education, few have examined the intersection of these two domains through the lens of teachers' personal and professional development.

Exploring teachers' dispositions towards facilitating equitable digital practices in multicultural classrooms involves both dispositions in digital practices and to the multicultural context. Literature highlights four main teachers' dispositions when using digital technology including: the teachers' pedagogical beliefs, the teachers' self-efficacy, the teachers' attitudes and their openness to change (Ottenbreit-Leftwich, Kopcha & Ertmer, 2018). On the other hand, the teachers' multicultural dispositions include: the teacher's empathy, meekness, social awareness,

inclusion and advocacy (Jensen, Feinauer Whiting & Chapman, 2018). However, using digital resources in multicultural classrooms, require a different set of teachers' dispositions.

Additionally, much of the current literature on digital equity focuses on access to technology without delving deeply into how teachers' beliefs and actions influence equitable practices in multicultural classrooms. The unique challenges and opportunities presented by Malta's educational ecosystem – characterised by historical, cultural, and institutional complexities – remain underexplored in the global discourse on inclusive education.

This study also addresses a temporal gap, as it is situated during and immediately after the COVID-19 pandemic – a period that exposed and amplified inequalities in education worldwide. Research on how teachers adapted their practices and dispositions in response to this unprecedented context is still emerging. By focusing on Maltese teachers' experiences and strategies during this period, the study adds a critical dimension to understanding the evolving role of digital equity in fostering inclusion in diverse classrooms.

In sum, this research fills an important void in both local and international scholarship by investigating how teacher disposition intersect with digital equity and multiculturalism in the specific context of Maltese primary education, providing insights with implications that extend beyond national borders.

1.6 The timeline when digital tools were introduced in schools

In Maltese primary schools, digital equity and teachers' dispositions to digital education evolved in line with the digital technologies introduced in schools. Digital technologies addressed different student needs and thus redefine digital equity. Teachers' dispositions also evolved according to the affordances of digital tools provided to students. The following is the timeline when digital tools were introduced during the COVID-19 pandemic (Figure 1) together with the teachers' programmes and a table of apps and digital tools used in primary schools along with a brief description of each (Table 1). This information was retrieved from the education website throughout the scholastic year 2020-21 as illustrated on the website https://primarydigital.skola.edu.mt/educator-programmes/

Figure 1

The Timeline when Digital Tools were Introduced in Schools

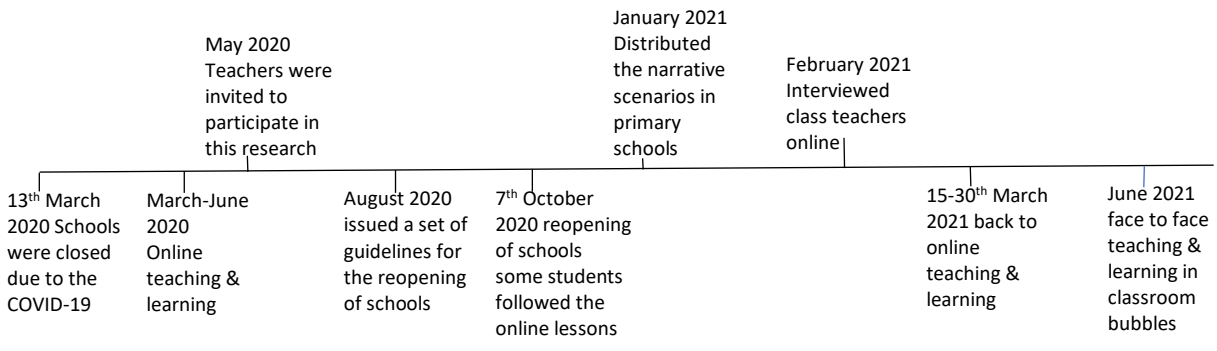


Table 1

Teachers' Education Programmes

Educator programmes 2020-2021	**Target Audience**	**The new digital tools were introduced during the courses which were entirely run on the MS Teams**
Digital toolkit for the primary classroom.	All primary class teachers	During this course participants were introduced to different educational apps and tools beneficial for active learning.
Using tablets to promote collaboration.	Years 4, 5 and 6 class teachers	This course was run entirely on the MS Teams where participants focused on using a variety of web 2.0 applications which enabled learners to collaborate together to brainstorm, share ideas and opinions, document ideas during group discussions, create digital artefacts, offer peer feedback and collaborate with other learner beyond the classroom walls.
21st century learning through technology for the primary classroom.	All primary class teachers	This course was run entirely on the MS Teams where participants benefited from the pedagogical opportunities of using different educational apps and tools creatively to engage students during the 'distanced' classroom and at home online learning.
Tools for the digital classroom in the early years.	KG, years 1,2 and 3 class teachers	During this course participants were introduced to digital resources such as short videos and links were posted on the MS Teams so that participants could go through the material at their own pace.
Using tablets to promote creativity.	Years 4, 5 and 6 class teachers	During this course participants were encouraged to use the following apps with their students and share samples of their students' work. The apps were: Picsay, SimpleMind, Workspace, Comic Strip it! and Author.
Using technology to enable learning.	Years 1, 2 and 3 class teachers	During this course participants were encouraged to incorporate the use of technology across the curriculum in six activities throughout the scholastic year. The six activities were: computational thinking, voice recording,

		compiling eBooks, using ready-made resources, creating interactive resources and producing digital presentations.
Using tablets to promote collaboration.	Years 4, 5 and 6 class teachers	During this course participants were introduced to various apps and web 2.0 tools which could assist them both face-to-face, as well as virtual collaboration. It was recommended that during the course teachers use eSafety resources.
Using tablets to promote creativity.	Years 4, 5 and 6 class teachers	During this course participants were encouraged to provide their students with a variety of productivity apps and assist them in choosing the most appropriate app to use for a specific purpose. The apps were: Picsay, Simplemind, Animator, Author Premium, Workspace and Comic Strip It!
Tinkering and making robots.	Years 4, 5 and 6 class teachers	During this course participants engaged in computation thinking concepts by using the Lego WeDo 2.0 kit in a cross-curricular approach.

Table 2

List of Apps and Digital Tools used in primary schools with a brief description

Digital Tools		**Brief description**
Microsoft Apps	MS Teams	MS Teams is a cloud-based team collaboration software, that is part of the Office 365 suite of applications. The core capabilities include messaging, calling, video meetings and file sharing.
	MS Bookings	MS Bookings is a scheduling tool and is part of the Microsoft Office family of products. Educators can use this tool to create a Booking Form for parents to book their appointments.
	MS Office	MS Office used to work on documents, spreadsheets and presentations online.
Content Creation	J2e	J2e offers students opportunities to interact within a child-friendly interface, either on their own or by collaborating with others. J2e offers learners opportunities to use multimodal ways to express themselves, including writing, graphics, drawings, recorded speech, digital animations and videos.

	Flip	Flip is a website that allows teachers to create 'grids' to facilitate video discussions. Each grid is like a message board where teachers can pose questions and students post video responses that appear in a tiled grid display.
	My Storybook	My Storybook is a fun and easy to use web 2.0 tool for use in the classroom and at home to create eBooks.
	Clicker8	Clicker is a writing support for the students.
	Storyjumper	Storyjumper is a web 2.0 tool which allows teachers and students to create eBooks. They can design pictures and record their voices.
	Book Creator	Book Creator is a web 2.0 tool for making multimedia digital books in any subject area, by combining text, audio, video, drawings and photos.
Literacy tools	Libby by Overdrive	Libby by Overdrive is a way to borrow and read books from the library.
	Octavo	Octavo brings access to a levelled reading library in Maltese to be used in class and at home. Teachers can also monitor students' progress and check comprehension by means of a short quiz after each book.
	Nessy	Nessy programs are designed to help students of all abilities to learn to read, write, spell and type, especially those who learn differently.
	Oxford Owl	Oxford Owl is a website which enables teachers to set up one class account to be used by all students in order for them to have access to a variety of English books at various levels, both at school and at home.
	Epic	Epic is an online library with access to over forty thousand high-quality books with different genres.
Assessment tools	Edpuzzle	Edpuzzle is a web 2.0 tool and app which enables teachers to find videos from various sources or even create their own videos and embed questions for students to answer while watching.
	Kahoot	Kahoot is a game-based learning platform that makes it easy to create, share and play learning games or quizzes in minutes.

	Nearpod	Nearpod is an instructional platform that merges formative assessment and dynamic media for collaborative learning experiences.
	Quizizz	Quizizz allows you to conduct student-paced formative assessments in a fun and engaging way for students of all ages.
	Learning Apps	Learning Apps is a web 2.0 application used to create games from ready-made, easy to use templates.
Coding Apps	Scratch Jr	With Scratch Jr young children can program their own interactive stories and games. In the process they learn to solve problems, design projects and express themselves creatively on their tablets.
	Scratch Imagine, Program, Share	With Scratch the student can program one's own interactive stories, games and animations while also sharing these creations with others.

1.7 The diversity within the Maltese context

The factors that might influence the teachers' dispositions at the macro level of the educational ecosystem are the country's history, the collective memory, the teacher training, the evaluation system, the curriculum and the national policies (Niemi, 2021b).

In Malta, current discourses on inclusion and diversity cannot be understood without referring to its historical background which was influenced by its size and geographical position (Mitchell, 2002, 2003). Malta is just 316 kilometres square in size however its geographical position in central Mediterranean was and still is influential on the daily lives and formation of identity of the inhabitants. Throughout history it was the ideal location for consecutive colonisers including the Phoenicians, the Romans, the Arabs, the Angevins, the Aragonese, the Knights of Saint John and the British. Malta became independent in 1964 and republic in 1974.

Throughout history, in their strive to overcome all forms of adversities, the Maltese people's identity and 'collective memory' (Mitchell, 2002) developed. This identity which is attached to the main religion, the Roman Catholicism, which throughout history made Maltese proud of being Catholics while cherishing their collective memory which even includes negative perceptions that still manifest themselves as prejudice. Muslims are still considered as the religious enemies of the predominant Catholic religion as a consequence of their role in the 1565 Siege when the Ottoman Muslim Turks invaded Malta and laid siege in an attempt to join Malta to the Ottoman empire. This

negative memory still influences the Maltese people's beliefs towards the Muslim people living on the island (Cassar, 2002) and still linger in the Maltese collective memory despite the fact that probably the Maltese islands flourished under the Arab rule from 870 AD to at least 1127AD (Wettinger, 1993). Subsequently, under the rule of the Order of Saint John (1530-1798), the Arabs were again considered as the enemy, resembling the Turks from the Ottoman period. As a result, the Order of Saint John managed to leave Eurocentric beliefs among the Maltese citizens (Borg and Mayo, 2006). A similar prejudice still exists with regards to Germans, considered as a dominant and aggressive race that bombed Malta during World War II.

During the mid 18th century, the Maltese identity changed with the new education system which was developed under the British rule. During this period the inhabitants were culturally colonized through the imposed British education system (Chircop, 2001). This *cultural invasion* (Mayo, 2017) brought about a dependency on the British education system, where after the country's Independence, Maltese students still continued to follow the British education system, to use British textbooks in schools and to sit for British final examinations (Sultana, 1999).

The inherited imperialism, the Anglocentric ideas of knowledge are still ingrained in the Maltese education system, in how we teach and how teaching is organised, thus maintaining a white supremacy (Willinsky, 1998). Most Maltese still identify with Eurocentric ways of being, they see themselves as Black Europeans playing down the Arab influences, carrying the *oppressor consciousness* that was developed throughout history after being subjected to oppressive behaviour. Thus, it is not uncommon that some teachers might tacitly encourage racist behaviour in their classrooms. They might position their superiority against alterity, against that of diverse students, which gives them a sense of 'positional superiority' (Mayo, 2017). Thus, it is critical to investigate the teachers' beliefs and actions because their racist behaviour and ethnocentric ways of teaching and learning may be conveyed through the curriculum content, the teaching strategies and the school structures, influencing the migrant student's learning.

The teachers' beliefs and actions are critical to investigate because the presence of students with migrant background is increasingly felt in Maltese schools. Since it's accession to the European Union (EU) in 2004, Malta attracted a good number of foreign skilled workers who came to reside on the island. These workers came both from EU and non-EU countries. Some migrants came with their families and their children attend the local schools. There are currently 516,100 (NSO, 2021) inhabitants in Malta, including 17,102 foreigners. According to the national statistics during the scholastic year 2018/9, our schools hosted 6989 foreign students, amounting to 12.16% of all the students enrolled in Maltese schools. 3820 students came from EU countries, including Italians, British, Bulgarians, Romanians, and Swedish, the rest 3161 came from non-EU countries, including Libyans, Serbians, Syrians, Russians and Ukrainians. Eight students came from unspecified countries

(NSO, 2021). Contrary to popular belief, only a minority came from North Africa. In 2018-19, the highest number of foreign students enrolled in state schools from EU countries were Italians with 1044 students, then British 793, then Bulgarian 371, followed by 204 Romanian students and 164 Swedish students. The highest number of students from non-EU countries were 598 Libyan students, followed by 434 Serbian students, 353 Syrian students, 192 Russian students and 123 Ukrainians (NSO, 2021).

The legislation regarding compulsory schooling of students residing in Malta has since 2002 stated that "free tuition is given to all children of migrant workers…in particular the teaching, is adapted to the specific needs of such children, in any of the official languages of Malta" and "within reasonable limits" and encourage further "the teaching of both mother tongue and the culture of the country of origin of such children in cooperation with such country of origin" (legal notice 259 of 2002; EU, 2019a). The policy of the Ministry of Educations has always declared that equal education is a crucial value of a democratic society. Hindering migrant students from participating in the educational provision could lead them to isolation and jeopardise their future aspirations.

1.7.1 A national inclusive educational policy

The teachers' dispositions are also influenced by the school context. Their beliefs and strategies are connected to the available resources in schools, in this case digital resources such as the availability of hardware and type of Internet connection. If hardware and connectivity are not available, the teacher cannot do anything about it, even if one's intentions are to use technology with all students (Niemi, 2021a).

The educational system success towards digital equity and inclusion depends on the commitment of the teachers and the other staff towards common goals and a shared school culture (Niemi, 2021c). To achieve this inclusive school culture in view of the current diversity in Maltese schools, a National Inclusive Education Framework was designed to guide the schools towards inclusion, based on the inclusive education definition of the Council of the European Union (MEDE, 2019, p3).

> "Available and accessible to all learners of all ages, including those facing challenges, such as those with special needs or who have a disability, those originating from disadvantaged socio-economic backgrounds, migrant backgrounds or geographically depressed areas or war-torn zones, regardless of sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation."

The inclusion policy states that "all learners have access to quality instruction, intervention and support to experience success in learning within a high-quality Inclusive Education system." Specifically, it aims

> "to hold high expectations commensurate with the potential of the learners and to provide meaningful and relevant learning experiences that maximise the potential of the learner, to co-construct evidence-based solutions to respond to the needs of all learners, and to consider alternative educational routes to eliminate barriers within learning environment" (MEDE, 2019, p.13).

Teachers are expected to deliver quality inclusive practices, where quality goes hand in hand with providing equal opportunities and quality support according to each student's diverse needs. The policy also states that various barriers could influence the implementation of the national Inclusive Educational Framework. Barriers which are encountered daily by the teachers include the attitudinal, language and culture, physical and environmental, training, systemic and organisational and curricular barriers (MEDE, 2019). In addition, Malta's aim towards a digitised inclusive society was declared in Malmö in 2009 (EC, 2009), where Malta committed to develop better online services, especially with respect to the digitally and socially excluded groups.

1.7.2 The national curriculum and evaluation system

Within the Maltese National Curriculum Framework, diversity is promoted as a feature of Maltese society and the diversity in the students' population is welcomed and mentioned in many instances. Diversity is considered a positive educational aspect, where it should be celebrated and respected (MEDE, 2012). Within the Learning Outcomes Framework, a cross curricular theme, "Education for diversity" is included, where an inclusive teaching and learning culture is promoted. This cross curricular theme aims to recognise the various students' perspectives and voices, which are promoted through the teaching and learning practices, the type of interactions, the choice of language of instruction and the type of resources used.

The current National Curriculum Framework (NCF) was enacted into law in 2012. This framework proposes the learning outcomes which are in line with the eight main learning areas, inspired by the EU Key Competences. The NCF is portrayed within the lifelong learning perspective, where students' diversity is celebrated and aims towards quality education for all. On the same line this study investigates Maltese teachers' dispositions to facilitate digital equity. Niemi (2021) stated that equity is possible in providing equal and quality opportunities when using digital resources in multicultural classrooms. Quality is investigated through digital access and the use of digital technology as supported by the Education system. Consequently in 2019 the Learning Outcomes Framework (LCF) was proposed from the NCF, as the keystone for the assessment of learning outcomes throughout compulsory education in Malta.

Both the National Curriculum Framework and the Learning Outcomes Framework, provide guidance to teachers, parents and stakeholders about the students' learning expectations. The

Learning Outcomes Framework aims to give more curricular autonomy to the teachers, to better facilitate the learning opportunities according to the students' individual needs (https://www.schoolslearningoutcomes.edu.mt/en/pages/about-the-framework). Giving autonomy to the teacher enables a sense of professionalism and influences the teachers' dispositions towards developing the curriculum according to the students' diverse needs.

The Maltese curriculum states that *digital literacy* increases access to learning, and the students' needs are better met through learner centred, flexible and relevant teaching strategies with digital resources. *Digital literacy* is illustrated as connecting with other learning areas in curriculum, as one of the cross-curricular themes. It is regarded as a transversal skill, connecting with other traditional skills including: numeracy, speaking, reading, listening and writing (MEDE, 2012). Digital literacy is considered a prerequisite for the citizen's participation in society; however, the Maltese curriculum does not clearly indicate how teachers are to prepare students for a digitised inclusive society. As a result, in 2015 efforts were made to encourage Maltese teachers to update their traditional teaching methods to a more 21st century learning environment (MEDE, 2015). It was an attempt to make teachers aware of the potential of digital technology and the urgent need to change their teaching approaches, which are much needed to contribute to an inclusive society. Recently in a study carried out among 241 educators in Malta, it was revealed that teachers are committed to use digital resources. Younger teachers are even more engaged and informed about how to use innovative digital resources to support the students' learning, while also focusing on the students' learning outcomes (Camilleri & Camilleri, 2017).

Various features in the Maltese education system, inherited during the era of colonisation, hinders change in teachers' practices and currently are facing challenges. Among these influences are the practise of streaming among students (Sultana, 1995), a competitive school culture (Wain et al., 1995), and the redistribution of resources to the highly achieving students, rather than to those who need them most (Mifsud, 1993). On the other hand, team work rather than individualism and competition is regarded as beneficial towards enabling unity and growth (Sultana, 1997b). These practices created a situation where Malta is having the highest rates of private tuition in the area (Buhagiar & Chetcuti, 2013). Maltese education is influenced by the diploma disease, which influence the teachers' practices, and the views of students and parents towards learning. Such educational expectations lead towards hoarding of content and rote learning rather than proficiency (Sultana, 1997b). Recently a group of 40 academics penned an open letter to the government warning that the educational system is failing to educate students to think critically, a skill which they feel is important for the workforce. Part of the letter read, "the current approach to education rewards rote learning (the act of memorising curricula) and leads to a workforce that is ill-equipped to deal with problems that require critical and innovative thinking" (STEM thinking, 2021).

Consequently, the Learning Outcomes Framework, in the Framework for the Education Strategy for Malta, 2014-2024 (MEDE, 2013) lightens the emphasise on exams and focus more on the students' individual learning needs. Through the new Learning Outcomes Framework, teaching and learning practices encourage more curricular autonomy for the teachers and the student's needs and abilities are recognised and valued during the learning process (MEDE, 2013). Additionally, the Maltese state provides induction programmes at the Language Hub for newly arrived students; however, no specialised educational resources are provided for children with migrant background (https://migrantlearnersunit.gov.mt). Zielezinski and Darling-Hammond (2018) indicated that specialised resources support better integration of diverse students.

In Malta the availability of digital resources in schools has increased and their importance to learning had been highlighted (MEDE, 2013). The availability of digital resources in Malta are found to be less than the European average in secondary schools and above average in primary schools (EC, 2019). Additionally, access to digital technologies is found to be less than the European average in secondary schools and above average in primary schools. Further the school policy on technology use in teaching and learning, and support for professional development indicates a lower share compared to the European average (EC, 2019). In Malta every student in primary schools, from Year 4 onwards is provided with a personal Tablet https://www.digital.edu.mt.

1.7.3 Teacher education in Malta

The teachers' dispositions to equitably use digital technology in multicultural classrooms can be influenced by the school culture and the conditions that enable the teacher to work as professional. At the meso level, within the school community collegial dialogue is encouraged. Since learning is considered a communal activity, the teachers' dispositions are influenced by these interactions. However, there may be structures within the school community which hinder this collaborative activity (OECD, 2015a). Therefore, teachers should be prepared to strengthen this collaborative school culture during their teacher education (Niemi, 2021a).

The teachers' education could influence how they collaborate with the various actors and stakeholders within the education system. In Malta there are limited policies if any on teacher education. What is mentioned by the Ministry of Education is that prospective teachers must follow and qualify from a professional teacher education programme (Sultana, Gellel & Caruana, 2019). Initial teacher education is offered predominantly by the Faculty of Education at the University of Malta. Recently the Institute for Education started offering courses leading to either a Bachelor of education degree for supply teachers without an undergraduate degree or a three year post graduate Master's degree in Education for those who have an undergraduate degree in a subject thought in schools. The University of Malta offers a two-year Masters in Teaching and Learning after

a three- or four-year undergraduate programme. The faculty prioritises school-based learning and inquiry driven learning, and a conscious effort is made to expose student teachers to as many pedagogical strategies as possible by modelling them during the programme. Throughout the training experiences, novice teachers are being prepared to teach in multicultural classrooms, they are prepared to face the students' diversity that they will encounter later on in their teaching carrier, when they have the role of a teacher.

How teachers are trained and whether teachers have the autonomy to practise in their classroom what had been taught during their studies, influences their dispositions towards facilitating digital equity and inclusion. In Malta, it was found that teachers feel they have little autonomy in the school's decision-making process. Cutajar, Bezzina and James (2013) analysed the Amended Education Act reform (2006), through which it was intended to diminish the centralised, top-down bureaucratic control. It was found that the top down hierarchical managerial approach was still being practised in the Maltese education system, through the new created position of the College Principal. Maltese teachers valued the benefits of the gradual decentralisation, resulting from the new reform, however they still experienced lack of autonomy (Mifsud, 2015). It is believed that Maltese teachers' contribution in the school decision-making process is crucial (Debono, 2015) since they are the ones who interact with students on a daily basis, including those students with migrant backgrounds. For example, the administrative decisions for the teacher to focus on syllabus content rather than on the processes might result in irrelevant learning experiences for migrant students. The possibility to make learning meaningful for all students depend on the teacher's autonomy and responsibility to develop the students' work according to their needs (Niemi, 2021b).

During training, Maltese teachers are being prepared to act as leaders within the community. The professional code of ethics guides them towards reflecting on their roles and responsibilities within the school community. It "is intended to guide teachers' practice judgements and decisions and inform parents, and the community of these standards. It also informs members of the community of the standards expected of teachers" (MEDE, 2021, p. 14).

After obtaining the teaching qualification, students move to employment as Newly Qualified Teachers. During this period, they are given full responsibility of a class or classes under the direction of a mentor. After these initial two years, they are assessed and then can apply for a permanent teacher warrant, issued by the Council for the Teaching Profession. As teachers they are expected to abide by the profession's code of ethics which is guided by the following six key principles. A teacher must:

1 Maintain trust in the profession.
2 Maintain professional relationships with students.
3 Respect the uniqueness and diversity of students.

4 Work in collaborative manner with colleagues, parents, guardians and carers.
5 Act with honesty and integrity.
6 Keep professional knowledge and practice up to date (LN 414/2012).

> "The Code is intended to encourage teachers to adopt an informed approach to their teaching and its contexts and to reflect on the good and correct practices as professional teachers" (MEDE, 2017, p.14).

To maintain this engagement, continuous professional development is required from Maltese teachers, teaching at pre-primary, primary and secondary levels. During the scholastic year Maltese teachers are required to dedicate 40 hours of training during school hours with no less than 12 hours dedicated to whole school development planning sessions (MEDE, 2017).

When observing the code of ethics, Maltese teachers are expected to respect the diversity and uniqueness of the students, and through the interactions establish the connections with the various actors, including their colleagues, students, parents, guardians and carers. Additionally, throughout their carrier, Maltese teachers are expected to continue developing their professional knowledge and practices.

1.7.4 The diversity in the students' population

At the micro level, the classroom level, the teachers' dispositions to facilitate equitable digital practices are influenced by one's expertise and personality. The teacher's dispositions to equitably use digital resources to connect with and integrate all students depends on the "teachers' own personal microsystem that can consist of cultural positions, family, traditions, values, worldviews, different disciplines and their values and norms" (Niemi, 2021b, p.10). At the micro level the teachers' dispositions may be influenced by the language barrier or parental involvement who may not be familiar with the school expectations (OECD, 2015a).

The diversity in the students' population is usually welcomed in the classroom and one's distinctive characteristics appreciated (Carter & Darling Hammond, 2016). In education the term 'diversity' can have different connotations and meanings. It can indicate the students' learning conditions (Banks et al, 2005), the socio-economic background, or the geographic location (Cochran-Smith & Zeichner, 2005). Diversity can be understood as the students' learning preferences, cognitive abilities, religious beliefs, sexuality, ethnic or cultural background (Carter & Darling Hammond, 2016). Sharma and Lazar (2019, p.1-2) stated that the concept of "diversity has become synonymous with cultural difference measured in terms of divergence from White, Anglo cultural identity associated with Western European societies and widely accepted as the normative frame of reference. Any

difference from this normative framework is considered a deviation into the catch-all term, diversity".

In this study, the term 'diverse students' implies the student's culture, religion and language which influence one's educational achievement in the primary school years. Diversity implies the student's situation, such as the newly arrived student, the first-generation migrant children, whose legal status may vary, from those having citizenship or residential permit, to those seeking asylum, unaccompanied minors or children of irregular migrants. Although the term 'diverse' may give the impression of a static, binary conception of the student's situation, in fact it is not. It is a process where the student's meaning making is developed through interactions from the previous life experiences to the new ones.

In multicultural classroom, the students' diversity is not only about their diverse attitudes or idiosyncratic stereotypes, but also about their thinking and their ways of doing things. Diversity is also appreciated in the students' co-presences, their previous presence in their native country and in their current receiving country, their past connections and the new ones, their school interactions and their home life. In multicultural classrooms all students are expected to excel in their education and are "recognised and treated as individuals with different needs and resources" (Nilsson & Bunar, 2016, p. 412).

In contemporary migrants' circumstances where "newer, smaller, transient, more socially stratified, less organised and more legally differentiated immigrant groups comprise global migration flows" (Vertovec, 2010, p.86), considering the student's differences is more critical. Contrary to the idea of the *melting pot* (Winter, 2011) where everyone is expected to assimilate in the dominant culture, nowadays migrants are more likely to maintain links with their home country, thus creating a *super diversity* (Vertovec, 2010), where their sense of belonging is attached to different countries and they experience co-presences (Modood, 2013). Vertovec (2010) noted that preserving links with their home country does not hinder migrant people's integration, but on the contrary ties are encouraged, enhancing and maintaining the minority group collective identity.

1.7.5 The research questions

Within the educational system most Maltese teachers' beliefs towards diverse students is influenced by the macro level structure, the nation's history, the beliefs passed down through generations to develop the collective memory. Some Maltese teachers' beliefs might still be ingrained in their minds and hearts, leading to racist beliefs and ethnocentric ways of teaching and learning, thus influencing the diverse students' learning. This indicates that Maltese teachers need to develop a disposition to reflect on their beliefs and become aware of how they implement their practices in class.

The teachers' beliefs and actions are also influenced by the macro level structures, such as the national inclusive educational policy, the national curriculum (NCF) and the evaluation system (LOF), suggesting that teachers should aim towards delivering meaningful learning experiences, by being open to learn about the students. Within the NCF and LOF the use of digital technology is considered a tool and teachers are given the autonomy to develop meaningful learning experiences according to the students' needs, by taking the risk and change one's practices when encountering 'barriers' such as different attitudes, languages and cultures.

Besides the macro level structure and the provided professional education, teachers' dispositions are influenced at the meso level by how the teaching profession is regarded within the school community. In Malta teachers are being prepared to teach in multicultural classrooms, how to respect diversity and include all students during their activities. On the other hand, with the school community, the teachers' dispositions are influenced by the code of ethics, which informs the community about the standards expected from the teachers. The code of ethics also prepares the teachers at the micro level to reflect on their practices and continually develop them according to the students' diverse and unique needs.

Both in literature and professional practice show that the teachers' work is always related to what is happening in society. Therefore, the teachers' dispositions are not only influenced by the classroom interactions at the micro level but as illustrated above also by the interactions taking place at the school community level, the meso level and the educational policy and regulations at the macro level. In this research the teachers' dispositions are contextualised within the metaphor of the educational ecosystem which "emphasises the interconnectedness of different parts and actors, their diversity and how they work together and share information" (Niemi, 2021a, p.18) and the COVID-19 pandemic provided an authentic context where teachers could develop their dispositions towards the innovative use of digital technology.

This study is framed within Niemi's metaphor of the educational ecosystem to explore Maltese teachers' dispositions to equitably use digital technology in multicultural classrooms within the encountered opportunities and challenges during the COVID-19 pandemic and answer the following research questions:

1. Which were the opportunities that influenced the teachers' dispositions to facilitate digital equity and inclusion?
2. Which were the challenges that influenced the teachers' dispositions to facilitate digital equity and inclusion?
3. How were the teachers' dispositions manifested in such contexts when recognising the students' differences in digital access?

4. How were the teachers' dispositions manifested in such contexts when using digital technology for teaching and learning?
5. How were the teachers' dispositions manifested in such contexts when facilitating inclusive practices?

1.8 Chapter outline

This thesis reports and discusses the research and the investigation carried out in six chapters. Chapter One, the Introductory chapter, presents the research area, the specific problem, the Maltese context and the research question. Chapter Two discusses the literature review and the theoretical concepts upon which the research is based, defining teachers' dispositions, digital equity and the multicultural classrooms and how these influence each other. It looks at how previous researchers had investigated these themes and their interaction. This chapter is followed by the methodology chapter, Chapter Three, where the principles, procedures and tools used to conduct this investigation are discussed. The fourth chapter analyses the results from the narrative scenarios and structures interviews with the various actors involved, and concludes with the presentation of the findings of this investigation. The fifth chapter, Chapter Five, discusses the implication of the findings to teachers' professional identity and practice, together with recommendations for the teachers' future training to facilitate digital equity and inclusion of all students. The conclusion of the thesis is illustrated in the final chapter, Chapter Six.

Chapter 2. The conceptual and theoretical framework

In the previous chapter, the context of this study was described by illustrating the structure of the main features of the Maltese educational system, the country's history; the curriculum and the evaluation system; the teachers' education; the teachers' professional status and responsibilities and the digital access and use in Maltese primary schools. Additionally, the diversity of the students' population in this thesis was defined. In this chapter the main concepts related to the central theme - the teachers' dispositions, the multicultural classroom and digital equity – and the theoretical framework will be discussed by considering the relevant literature sources. These sources are evaluated to refine the research questions that guides this investigation. The following section will define teachers' dispositions and elaborate on how these can be investigated.

2.1 The teachers' dispositions

The importance of finding out about teachers' dispositions is suggested in various accredited teacher institutions such as the Council for the Accreditation of Educator Preparation (CAEP) (https://caepnet.org/standards/2022-itp/standard-2) where 'dispositions' are included in preservice teachers' assessments. This is due to the fact that dispositions are based on one's personal beliefs, values and moral inclinations (Diez, 2007). Teachers' dispositions give an indication of the teacher's future performance, since they are not only intentions but lead to the actual behaviour (Freeman, 2007; Villegas, 2007). They are tendencies that are indicative of behavioural patterns, tendencies which teachers are likely to take in their future. Dispositions are related to one's behaviour, as "summaries of act frequencies" or "trends in behaviour" (Katz and Raths, 1985 p. 301). They are only intended behaviours, since they only predict how one is going to act and not the cause why one acts that way (Sockett, 2009).

Dispositions are considered as being influenced by the teachers' characteristics to act in particular way, to reach the intended objectives. They are personal and do not take place in isolation, they are influenced by the context in which they are being carried out (Nelsen, 2015). The context can encourage or hinder the teachers' intentions, to actualise the intended performance. The teachers' dispositions to act, to do something, are influenced by the school environment where it is situated; the social, cultural and political context (Diez, 2007; Katz & Raths, 1985). As an example, Warren (2018) stated that parental involvement or the availability or lack of educational resources at school, might influence the teachers' dispositions to act. Stooksberry and colleagues (2009) stated that the context influences the teacher in three domains: their intellectual, their cultural and their moral state. The intellectual state is related to behavioural and social aspects such as the teachers' expectations and pedagogical beliefs. The cultural state is related to teachers' characteristics, their

identity and the moral state concerns the teachers' values, their perceptions and aspirations towards achieving their intentions.

This indicates that teachers' dispositions are dynamic and crucial towards practising new competences (Fenstermacher & Richardson, 2005). One can say that teachers' competences and teachers' dispositions reciprocally influence each other. Development in teachers' competences may affect the teachers' dispositions and teachers' dispositions influence their competence achievement (Diez, 2007; Nelson, 2015; Wake & Bunn, 2016). For example, it was found that providing preservice teachers with relevant and critical training on multicultural education could enhance their attitudes and therefore their dispositions towards their practices with diverse students (Arsal, 2019).

After synthesising the various definitions of teachers' dispositions, Villegas (2007) came up with the following definition, which will be the working definition underpinning this study because it is based on the social justice agenda that aims to prepare teachers with pedagogies to teach all students fairly and inclusively (Villegas, 2007):

> "Dispositions are tendencies for individuals to act in a particular manner under particular circumstances, based on their beliefs. A tendency implies a pattern of behaviour that is predicative of future actions" (p.10).

One can conclude that the main constructs of teachers' dispositions are the teachers' beliefs and actions, which are influenced by the context (Nelsen, 2015) and influence the teachers' dispositions culturally, socially and morally (Stooksberry et al., 2009). The importance of finding out about current teachers' dispositions lies in the fact that knowing about these dispositions could help us identify the contexts to teach all students fairly and to prepare teachers to nurture in students the ideal competences.

2.*1.1 The teacher's beliefs*

There is an ongoing discussion, whether the focus of change should be the teachers' beliefs or the teachers' actions. As a response, Gay (2013) stated that the teachers' beliefs always come before and shape the teachers' actions. The teacher beliefs could be illustrated in their epistemological and pedagogical beliefs that influence one's dispositions. This is explained below.

2.1.1.1 Epistemological beliefs.

In digital environments, Chai (2010) highlighted that the teachers' epistemic beliefs, that is the teachers' concerns about how students acquire knowledge, influence the use of digital resources. Current educational reports suggest that the use of digital technology demands from the teacher to act as an *epistemic facilitator*, that is to help students construct their new knowledge sustained by technology. In his qualitative research, Chai (2010) conducted two individual interviews with seven

teachers from Singapore. The teachers' beliefs were analysed from the assertions reflected in the interview transcripts. The results indicated that all the seven teachers' pedagogic and epistemic beliefs seemed to be influenced by their school priorities and by how they perceived the students' readiness.

This indicates that every teacher holds his or her fundamental epistemological beliefs; how and by whom knowledge can be acquired. Kim and collegeaues (2013) explored the connection between the teachers' epistemological beliefs and digital practices. In their study, twenty-four teachers participated in a mixed method project which lasted four years. The results indicated that even though the participating teachers received the same training, the level of technology use varied among them. Various related factors were identified, amongst which were the teachers' beliefs. Kim and collegeaues (2013) suggested that the teachers' epistemological beliefs may need to be challenged in order to achieve change in their actions.

2.1.1.2 Pedagogical beliefs.

On the other hand, the teachers' pedagogical beliefs are the teachers held beliefs about how they should teach and how students learn (Ertmer, 2005). Teachers may hold stereotypical beliefs about a certain group of people. They may lack training on how to deal with the students' differences in the classroom, which may result in lack of social and emotional support for students with migrant background. These beliefs are the result from the teachers' past experiences, how they approached a similar situation, where the solutions were developed out of the teacher's subjective understanding of that situation (Smylie, 1994). Without having the actual knowledge about the group, the teacher may assume that they should look or act in a certain way.

This implies that the teachers' decision to act depend on their held beliefs, actions that may seem habitual, since they are repeated given the same circumstances. However, they are still intentional since the actions taken are based on the teachers' reflections on their past experiences (Cooper, 2019; Pantic, 2017; Schussler, 2006). Smylie (1995) emphasised the influence of the teachers' beliefs and explained that "in order to change practice in significant and worthwhile ways, teachers must not only learn new subject matter and instruction techniques, they must alter their beliefs and conceptions of practice, their theories of practice and their 'theories of action'" (p. 95).

Change in teachers' beliefs is critical because the teachers' negative expectations, prejudices and discriminations, may negatively influence the students' learning. Such was the case with non-English speaking immigrants in the United States who were often labelled as students with special needs (Adair, 2015). Only a few immigrant students made it to academic courses, since many were in special education courses, where the curriculum content was weaker and only a few teachers were qualified (Darling Hammond, 2010).

On the other hand, prejudices include the untenable negative appraisals towards a group or a person, for example, the feelings of local parents towards the presence of migrant students in their children's class. They may believe that the presence of immigrant students in local classrooms will compromise their children's learning (Adair, 2015). The social context also influences the teachers' pedagogical beliefs. Rafalow (2018) highlighted that students were treated differently by the teacher for the same behaviour in different contexts. He noticed that in well-off schools attended mostly by white students, students who engaged with technological activities were praised and their engagement considered as beneficial for their future employment and participation in society. On the other hand, the same digital engagement of Latino students was considered negative and a threat to society. Both stereotypes and prejudices can lead to marginalisation and discrimination of diverse students.

However, when teachers held positive beliefs about newly arrived students, they influenced how these students were received at schools. Teachers fostered new understanding among all students both the newly arrived and the locals (Emert, 2014; Johnson, McHugh, Eagle & Spires, 2019). Prejudices were reduced when teachers showed understanding about the cultural experiences, values and attitudes of students with migrant backgrounds and their parents (Banks & Banks, 1995).

The teachers' beliefs encouraged further engagement and understanding of diverse cultures and challenged the local students' stereotypes (Adair, 2015). Additionally, when migrant students in the United Kingdom were appreciated by the native classmates for their hard work, they were encouraged to work even harder. Carter and Darling-Hammond (2016) stated that when positive or negative expectations from a particular social group were frequently and constantly communicated, these members usually adhered to these expectations. It was noted that with time students developed a self-fulfilling prophecy to reach these expectations. Nieto (2005) pointed out that change in teachers' negative beliefs could only be achieved when they are confronted; "teachers … pick up the same messages and misconceptions that we all do, and it is only by confronting the ones that get in the way of student learning that change will occur …" (pp. 217-218). For example, the teachers' positive beliefs actively work against the deficit labelling, which refugee students bring with them in the classroom. Labels can be related to their native language, how they look or behave, or else their financial situation. To eliminate these deficient labels, it could be best to encourage all students with new learning challenges. If the teacher expresses a deficit attitude towards the students, the students' impressions of what they are capable of doing can fade away (Reich, 2019).

For example, future 'white' teachers believed that the disciplinary problems and under school achievement of African American students were related to parental behaviour at home (Walker-Dalhouse & Dalhouse, 2006) and not to systemic issues (Gay, 2010). The teachers' deeply

embedded beliefs act as filters, resisting change (Pajares, 1992; Stuart & Thurlow, 2000), what Cuban (1998) calls the se*cond order change* which requires that teachers are interrogated on their value assumptions embedded in their beliefs, their Eurocentric oriented beliefs. Howard (1999), a white multicultural educator cautioned a group of white educators that,

> "we cannot fully and fruitfully engage in meaningful dialogue across the differences of race and culture without doing the work of personal transformation …. We cannot help our students overcome the negative repercussions of past and present racial dominance if we have not unravelled the remnants of dominance that still linger in our minds, hearts and habits" (p.6).

One cannot directly observe the teachers' dispositions, but can understand them through the teachers' shared reflections (Popham, 2017). The teachers' dispositions "involve awareness, inclination, and reflection on behaviours and thinking – not just the behaviours or the thinking themselves" (Schussler, 2006, p. 257). It is the aim of this research to investigate these assumptions, through the teachers' shared reflections on their beliefs and actions, when collecting data as will be illustrated in the following chapters.

2.1.2 The teacher's actions

The other construct of a disposition is the act. The teachers' provision of education should be adapted to current societal changes, a pluralist society, which comprising of a wider mix of races, religions, cultures and ethnic groups (Vertovec, 2010). Similarly, the teacher's role and responsibilities in preparing students for the future is also changing, where the frequently mentioned required skills expected to be taught by the teacher are "creativity, innovation, critical thinking, problem solving, communication skills, collaboration, information & digital literacy, conflict resolution and social and intercultural skills" (Niemi, Toom, Kallioniemi, & Lavonen, 2018, p. 1), skills which comprise competencies of both digital and cultural elements (Niemi, 2021c). Teaching and learning with digital technology depend on how open teachers are to change, to adopt the new digital practices, for example to practice 21st century skills, including critical thinking, communication, collaboration and creativity (OECD, 2018). It requires from the teacher the willingness to "try new instructional innovations" and "take risks in teaching" (Baylor & Ritchie, 2002, p. 399). Vanatta and Fordham (2004) described this disposition as "a willingness to commit one's time 'above and beyond the call of duty' and a risk-taking attitude" (p. 261).

2.2 Interculturalism and Multiculturalism

In contemporary super diverse and fluid societies, living in a changing world with fragile social structures and adapting in the new country is more complex than past migration experiences (Vertovec, 2010).

As a demographic fact, multiculturalism includes the co-existence of different cultures, religions and languages, a diversity which is created by the immigrants' characteristics. However, these characteristics are looked upon as the cause of 'failure' of multiculturalism in European countries (Bloemraad & Wright, 2014). Multiculturalism is considered as impeding immigrants to integrate, by fostering cultural isolation and parallel lives (Bloemraad & Wright, 2014). In a recent study in Sweden, it was illustrated that children of immigrants are often more susceptible to participate in criminal activity. It was indicated that foreign-born children with foreign-born parents have 2.5 - 3 times more chance of being suspected of crime, than Swedish-born children with Swedish-born parents (BRÅ, 2021).

On the other hand, in Canada, the inhabitants' diverse characteristics are considered an asset and are being used to promote a sense of belonging in a pan-Canadian nation. Multiculturalism in Canada means partnership, where the population's diversity is considered a 'competitive advantage' within the current globalisation challenges (Abu-Laban & Gabriel, 2002, p.116). In Canada, immigrants are welcomed, and their talents are traded for membership in the country (Siddiqui, 2000). Over the past ten years, within the European Union, interculturalism became recognised as the preferred alternative term to multiculturalism, as the new approach to manage plural liberal-democratic societies (Joppke, 2018). However, in order to define the concept of the multicultural classroom it is crucial to investigate the concepts of multiculturalism and interculturalism.

To find out about the differences between multiculturalism and interculturalism, Meer and Modood (2012) drew comparisons in four areas including; (1) the recognition of identities, (2) the meaning of dialogue, (3) the consideration of illiberal practices, and (4) the sense of unity in diversity. In the first comparison regarding the recognition of identities, Meer and Modood (2012) stated that Interculturalism is generally considered as less "groupist" since in Interculturalism expressions of cultural heritage are more dynamic. On the other hand, in multiculturalism, cultural heritages are protected, thus encouraging a more closed community.

Likewise, views on interculturalism and multiculturalism are also illustrated both in the UNESCO and EU definitions. The UNESCO illustrates Interculturalism as "a dynamic concept and refers to evolving relations between cultural groups" (UNESCO, 2006, p.17). Within the Council of Europe and policies from the EU commissions the term intercultural is depicted as indicating "interactions, negotiations and processes" (Gundara, 2000, p.233). On the other hand, both the

UNESCO and the EU, view the purpose of multiculturalism to describe the diversity of society, in terms of culture, languages, religions and socio-economic differences (Hill, 2007; UNESCO, 2006).

However, if one takes a look at the interactions taking place within the two, it can be noticed that in public spaces, the intercultural participation is not democratic, since the people's participation does not depend on interactions and discussions but rather on judicial practices, such as the *bill of rights*. Such interactions do not consider the individual's past experiences and their memories of their native country. Therefore, the diverse experiences present within post-migration population are not recognised and valued. Such interactions are not considered as an opportunity through which a multicultural identity is developed, rather the comparison is considered an apolitical activity (Meer & Modood, 2012).

In multiculturalism, as the term 'multi' implies encompasses different types of groups, including the recognition and valuing of marginalised people (Modood, 2013). Therefore, multiculturalism identifies with a wider population and is not groupist. To facilitate equitable digital practices in multicultural classrooms, the teacher needs to become socially aware of the various students' identities, their various social realities, their past experiences and co-presences even of the marginalised ones (Modood, 2013) and integrate them in the teaching and learning process.

Considering the second comparison on the meaning of dialogue, in interculturalism and multiculturalism, it was stated that interculturalism is considered more open to dialogue than in multiculturalism. However, Meer and Modood (2012) argued that dialogue is also a multicultural characteristic. They illustrated how in Taylor's (1992) essay, the recognition of the authentic self, dialogue is central to multiculturalism, where one's true self and value are identified through dialogue. One can conclude that dialogue is also a central characteristic of multiculturalism. In multicultural classrooms the teacher needs to be open to learn about the students' uniqueness, through dialogue, through the interactions taking place in class with digital technology.

In their third comparison, regarding the consideration of illiberal practices, Meer and Modood (2012) claim that multiculturalism is depicted as illiberal and relativistic, while interculturalism is seen as more likely to lead to criticism of illiberal practices, therefore more prone to protect the individual's rights through intercultural dialogue. For example, some cultural groups may exhibit practices that are perceived as illiberal in their claims related to beliefs. However, such practices are not solely a product of cultural traditions but are often deeply intertwined with religious beliefs, which constitute an integral component of culture. Religion and culture operate in tandem, shaping each other and influencing the values and norms of a group. Thus, it is critical to acknowledge the interconnectedness of religion and culture when addressing these practices to avoid oversimplification.

Encouraging interactions and activities in mainstream education could encourage the nurturing of both values and beliefs. This shows that inclusion of differences into the mainstream, were and still are part of multiculturalism, where negative differences are turned into positive differences, an opportunity to the mainstream population. Thus, new identities are developed through these interactions when the differences that these students bring with them are recognised and valued in the teaching and learning process. This indicates that in multicultural classrooms the teacher needs to be open to learn about the students' culture, one's meaning making and prepare culturally relevant activities during the interactions taking place in class. The teacher's disposition to learn from the students encourage more meaningful interactions and the nurturing of the students' identities.

In the fourth comparison, on the sense of unity in diversity, Meer and Modood (2012) highlighted that intercultural interactions are generally considered as working towards unity, while multiculturalism only gives voice to the minorities. Thus, multiculturalism is regarded as emphasising separations rather than unity, ignoring the needs of the most (Goodhart, 2004). Yet in society, it is the migrants, the minority group, who face more difficulties in integration, who face the burden to adapt to the new social structures, which are influenced by the receiving country's historical past (Modood, 2013). In multiculturalism the role of citizenship is to bring the marginalised groups into the mainstream, to encourage a sense of belonging, a sense of unity, where both the commonalities and differences are identified and expressed to create an inclusive public space (Modood, 2007a). To create a sense of unity and belonging in multicultural classrooms the teacher needs to facilitate inclusive practices, by exploring and sharing the commonalities and differences among the students.

These four comparisons, related to (1) the recognition of identities, (2) the meaning of dialogue, (3) the consideration of illiberal practices and (4) the sense of unity in diversity, although emphasised as being characteristics of interculturalism, also belong to multiculturalism. As a result, one can conclude that interculturalism cannot be interchanged with multiculturalism. Interculturalism is not an updated version of multiculturalism (Meer & Modood, 2012) and as a political inclination, multiculturalism excels that of interculturalism, since in multiculturalism both the individual and the group are recognised in social life (Joppke, 2018; Meer & Modood, 2012).

Table 3

Comparisons between Interculturalism and Multiculturalism

Comparisons (Meer & Modood, 2012)	**Interculturalism**	**Multiculturalism**	**Multicultural Dispositions**
The recognition of identities	"Less groupist" since expressions of cultural heritage are more dynamic, but interactions are not democratic	Cultural heritages are protected, but the interactions consider the people's past experiences	Social awareness to recognise and value the students' differences
The meaning of dialogue	More open to dialogue	In Taylor's essay on the recognition of the authentic self, dialogue is central to multiculturalism	Openness to learn through dialogue and interactions
The consideration of illiberal practices	More likely to lead to criticism of illiberal practices	Illiberal practices emanate from their culture not religion, and culture and practices change with time	Openness to learn through dialogue and interactions
The sense of unity in diversity	Actively working towards unity	It aims to bring the marginalised group into the mainstream	Work towards integration through inclusive practices

From these comparisons in Table 3, it could be concluded that the teachers' dispositions towards equitable practices and inclusion could be investigated from the multicultural classroom characteristics of (1) to recognise the students' differences (2) to interact with the students and (3) to facilitate inclusive practices. These multicultural classroom characteristics are synonymous with the three characteristics of the educational ecosystem including: (1) the diversity, (2) the information flow through the system and (3) the interconnectedness of constituents (Niemi, 2021a) as illustrated in Table 4.

Table 4

Comparisons between the Educational Ecosystem and the Multicultural Classroom

Educational ecosystem (Niemi, 2021)	**Multicultural classroom (Modood, 2013)**
Diversity in an ecosystem means that different kinds of actors contribute to the system.	**Differences** in multicultural classrooms are recognised and valued by the teacher.
Information flow is the communication taking place within the ecosystem and requires mutual interactions between the actors.	**Interactions** through teaching and learning are encouraged by the teacher in multicultural classrooms
Interconnectedness is present when there is mutual dependency between different parts and actors in the system.	**Inclusive practices** to integrate all the students

2.3 The multicultural classroom

Framed within the educational ecosystem (Niemi, 2021a) the teachers' dispositions to facilitate equitable digital practices in multicultural classrooms could be investigated through three characteristics; (1) when recognising the students' differences, (2) during the interactions taking place in class and (3) when facilitating inclusive practices.

2.3.1 The recognition of the students' differences

In multicultural classrooms it is the teacher's role and responsibility to make a conscious effort to recognise and value the students' differences (Niemi, 2021b).

Public spaces, like schools, are not culturally neutral. Within society there is already the 'cultural structure' present, which had been constructed by previous generations, from the dominant groups and handed down through history. Therefore, in multicultural contexts like Malta, where there are post-colonial influences of domination and subordination, it is impossible to have a completely characterless and value-neutral public space (Modood, 2013). One cannot declare neutrality as equality disregards the passed down positions of power in society. Justice can only be achieved when the dominant groups in society, value and accommodate the needs of the minority (Bloemraad & Wright, 2014), by re-creating a public space, to integrate marginalised people (Modood, 2013). As a public figure, the teacher has a great influence on diverse students and their families and through digital resources, the teacher could leverage digital access to include all students in the learning process (Winter, 2015).

In some schools, the diversity in the students' population is considered a commodity, an opportunity to prepare students to participate in a pluralistic society. However, Kirkham (2016) noticed that in these schools' racism is normalised. It is difficult to depict racism when it is deeply rooted in social structures (Gay, 2013). People tend to deny the discomfort of a stranger, the ambiguity (Bauman, 1991) and apply "a colorblind philosophy as evident by avoiding any specific reference to cultural diversity, social class, race, and ethnicity" (Gay, 2010, p.138). However, the students cannot choose their culture or ethnicity, because they are born in it, therefore it is critical to recognise and value their differences.

To recognise differences, both positive and negative, implies respecting the authentic identities of the other, to accept rather than to fear the ambivalence of otherness (Bauman, 1991). It is from these negative differences, such as "alienness, inferiorisation, stigmatization, stereotyping, exclusion, discrimination, racism, etc" (Modood, 2013, p.34) that the students' differences are recognised and valorised. Therefore, it is critical for the teacher to reject any assertions of "colour blindness" (Cochran-Smith, 1995) and value the student's differences, their unique realities and co-

presences. Consequently, the lack of teachers' reflection could contribute towards apprehension and refusal to tackle cultural diversity in class.

Additionally, in multicultural classroom, the teacher cannot understand the student without referring to his or her different cultural background, one's cultural order (Bauman, 1973). The student's value "cannot be understood purely in external or "objective" terms without reference to cultural norms and ethnic identities" (Modood, 2013, p.93). 'Culture' is understood as the various meaningful practices residing within the individual or the group (Bocok, 1992). The search for meaning making is considered a fundamental human activity, since every meaning implies an ambiguous situation "the diversity of meanings enforces the cultural struggle for structuring and limiting meanings constructing a cultural opening (and closing) a horizon for orientation" (Junge, 2008, p. 44). Along the same line Piller (2017) stated that "Culture is an ideological construct called into play by social actors to produce and reproduce social categories and boundaries "(p.10). Therefore, the meaning of "culture" in this thesis is not static but a process constructed during the interactions. Thus, for the students' integration it is best for the teacher to respond to the students' diverse struggles, *political and ideological struggles* (Giroux 1992) in their meaning making process. In this process considering the students "difference" rather than "culture" might be a better concept to understand ambiguous situations, and work towards the student's integration (Modood, 2013).

Encountering the students' ambivalence could be regarded as a learning opportunity by the teacher when encouraging the student to assert oneself and share one's differences in class through the use of digital technology. It is through these expressions of ambivalent encounters, how one's difference is experienced, that interactions in social transformations could be understood and developed towards inclusion (Junge, 2008). In this process contradictions are frequently experienced, and teachers might consider this encounter to diversity as an obstacle rather than a resource for learning. The teacher might not be comfortable or prepared to value and accept the ability of migrant students to see things differently and their wish to discuss things (Junge, 2008). One's behaviour and ethnocentric ways of teaching may be conveyed through the curriculum content, the teaching strategies and the school structures, influencing the student's learning and inclusion (Banks & Banks, 1995).

Coping with 'strangeness' might be an uncomfortable situation for the teacher, however Junge (2008) stated that it is in considering these contraries, these teachers' expression of frustrations with strangeness that development in inclusion could be achieved, when he stated "every development is a unity of contraries" (p.41). Therefore, it is critical that the teachers' contradictory experiences facing the differences in the students' population in class be seized and considered as an opportunity for development towards integration. This was also confirmed by

Bauman as was highlighted by Junge (2008): “the plurality of perspectives is unavoidable and valuable, and thus we have to use the plurality of perspectives” (p.13).

2.3.2 The interactions during teaching and learning

Another characteristic of a multicultural classroom is that the teacher interacts with the students during the teaching and learning experiences in class.

When discussing the concept of interactions, Zapata-Barrero’s (2017) made a distinction between intercultural interactions and intercultural dialogue. When people meet face-to-face he called the interaction an *intercultural interaction* and when people argue and share values, ideas and symbols, an *intercultural dialogue*. In multiculturalism Modood (2013) highlighted that “a sense of belonging to the polity is achieved through sustained public discussion” (p. 17). Therefore, in multicultural exchanges, both the interactions and dialogue are concurrently active, since during public debates, individuals meet face-to-face, discuss ideas and values, and share their life experiences. Thus, in this thesis the multicultural interactions include both face-to-face encounters and dialogue.

However, Modood (2013) highlighted that public spaces are not value-neutral and this affect the quality of the interactions, when he stated the “way of structuring space and of deciding what is public and what is private can be an enormous source of power and inequality” (p. 50). This implies that those who are legitimate for the information are those who are able to participate in a democratic society. Young (1990) suggested that those in authority ought to consider whether everyone knows *the rules of the game*, whether everyone understands the procedures and the way of doing things to be able to participate in society.

In multicultural classrooms, through these interactions the teacher enables the remake of the students’ identities where both the minorities and the majorities are included (Modood, 2013). According to Taylor (1994) equal ways of interacting are transmitted through two dimensions; equal dignity and equal respect. Equal dignity is practised when one focuses on the commonalities between people, while equal respect is achieved through understandings of differences between people. In education the process of achieving equity entails that the teacher is not expected to teach every student with the same approach, but to provide each student with the support needed to achieve one’s educational goals. Equal practices are tailored according to the student individual needs, where the student is acknowledged as he or she is, since “the withholding of recognition or misrecognition is a form of oppression …an advantage that some currently enjoy should not be a privilege but available to all” (Taylor 1992, p. 38-9). Equal opportunities are achieved through a two-way dialogue, through reciprocity (Junge, 2008). Reciprocity seems to be the key to establish moral

order when the teachers recognises and values the students' differences and considers possibilities for the student's integration (Junge, 2008).

Modood (2007a) suggested that during the interactions both the person's commonalities and differences are identified and used to create an inclusive public space. In sharing their past experiences, who they are, through the class interactions, the students understand and learn the new ways of doing things in the receiving country and develop a sense of belonging (Modood, 2013). It is through dialogue, through the sharing of the students' different qualities, that positive contribution could be achieved in class since during these interactions students with migrant background challenge the present social order. It is a process where both the local and the foreign students learn from each other; a two-way process where the views of the minority are appreciated by the majority and vice-versa. The newly arrived students' different views are valuable because the strengths and weaknesses of the new country and ways of living are challenged and evaluated by these students (Parekh, 2000).

However, it is a human tendency to distinguish between "us and them", to value groupness and cultural membership (Kymlicka, 1995). As a result, the problem lies in how this excluded group, those who do not fit in any category, are handled when social order goes through liquification, where the social structures are irrelevant to these people, where the people's diversity is not recognised and valued in public spaces (Junge, 2008).

Current migration patterns influence the nation states and their social structures, and could leave migrants in low socio-economic conditions (Vertovec, 2010). Lack of social interactions could result in isolation and marginalisation (Modood, 2013). Bloemraad and Wright (2012) stated that without interactions migrant people might be less prone to learn the local language, change their ethnic enclaves and integrate in the new country. They might remain in the residential areas which are associated with low education achievement, poor occupations or unemployment, live in parallel lives, which make them susceptible to profound and lasting possibilities for inequalities and radicalism. Further Bloemraad and Wright (2014) stated that negative attitudes towards migrants were more likely to take place in countries who already had ambivalent attitudes towards multiculturalism. These attitudes might have developed from events happening in the country, like acts of terrorism or from historical events.

Nowadays digital technologies are ubiquitous and in today's super diverse societies (Vertovec, 2010) they could be the means for migrants to remain connected with their home country. Elmianvari (2019) found that the use of social network platform Facebook enabled communication among Iranian migrants in Belgium, whose connections went beyond the residing territory, reaching worldwide locations thus increasingly blurring the boundaries between countries.

Additionally, the social media tend to have great impact in promoting change in the people's attitudes (Winter, 2015). In Malta, how the government treat migrants is instantly and widely communicated through the social media, influencing how the public perceive and identify with migrants. This was illustrated recently when an injured migrant was abandoned on the roadside after an accident on a construction site. This incident caused widespread anger among the Maltese population who expressed their concern on social media, raised funds for the injured migrant and participated in demonstrations (Abela, 2021).

Therefore, this situation further highlights the importance of dialogue, a practice which should be initiated with the students in the classroom. It is important for role figures within the community, such as leaders and teachers, to reflect on their positive attitudes in their discourses towards diverse population, the strangers (Simmel, 1908, 1950). This situation further highlights the importance of investigating the teacher's beliefs and actions in fostering dialogue and interactions, a practice which should be initiated with the students in the classroom.

2.3.3 The facilitation of inclusive practices

To encourage integration, one should start by rethinking the relationship between the majority and minority in society (Modood, 2013) and this is also critical in multicultural classrooms. In pluralist societies it is critical that public discourses attempt to recognise and valorise the diversity within the population. Thus, both the majority's and minority's identities are enhanced and could enhance the possibilities for integration (Modood, 2013). It is assumed that when applying widening discursive notions of national identity to include minorities, such as considering hyphenated or nested identities, the sense of political unity is increased (Taylor, 1994; Kymlicka, 1995; Parekh, 2000). Additionally, as Berry (2005) stated having a bicultural identity influences one's attitudes towards life and self, makes one feel confident and safe, and adapt better in society. However, in this thesis the term culture is viewed as a process, something that we do rather than something that we have or belong to (Piller, 2017).

In Malta a three-year anti-racism strategy 2021-2023 was recently launched and welcomed by the public. It comprises twenty-two measures aiming to tackle and eradicate discriminatory practices (Fenech, 2021). It aims to confront racism, recognise diversity and enhance the experiences of minority groups by addressing their needs.

Through facilitating inclusive practices, the teacher accepts all students as they already are and helps them to integrate in the new country (Modood, 2013). In this study the difference between inclusion and integration is that inclusion is a one-way process when one is connected to another group or a structure (https://dictionary.cambridge.org/dictionary/english/inclusion), while

integration is a two-way process in which a response is expected from the individual within a group or a structure (Modood, 2013). The integration of diverse students in class could be achieved when the students are able to reflect and share their diverse experiences through the class activities (Modood, 2013). He further suggested four modes of integration: (1) assimilation; (2) individualist-integration; (3) cosmopolitanism; (4) multiculturalism. These modes of integration are important to consider because they suggest how "differences" are managed by the teacher in the classroom, how students are recognised and valued, how they are identified by the teacher and how students identify themselves.

1. In assimilation, individual and group 'differences' are marked. Minorities are encouraged to accept the dominant group. Differences are avoided because they stimulate discrimination, instead a strong common national identity is encouraged.
2. In individualist-integration diverse people are treated with discriminatory practices. Minorities can assimilate or privately cultivate their identities, but are encouraged to think of themselves as individuals. Everyone is treated on an individual level and not on their differences. Discrimination is avoided and individual autonomy nurtured within a national liberal democratic citizenship.
3. In cosmopolitan integration, treatment for diverse people is based on the idea of 'us' and 'them'. Individuals are free to belong to various identities. Discrimination is tackled by bringing down the dominant culture and inhabitants are looked upon as global citizens.
4. In multicultural integration diverse people and groups receive the discriminatory treatment of 'us' and 'them'. Minority people are free to assimilate and to purse group membership as they wish. An anti-discriminatory social life accommodates the new groups, both the minority and the majority. Dialogue is encouraged between groups (Modood, 2013).

To facilitate equitable digital practices in multicultural classrooms, the teacher starts from the students, by giving them the opportunity to express their life experiences, the students' assertive identity statements. Their shared different life experiences, their values and their perceptions create a multicultural space in the classroom (Modood, 2013). Multiculturalism is not about achieving one's cultural rights, it is concerned with political engagement, it is a process and seeks inclusion of the views and contribution of diverse people. It considers that all human beings have individual and equal rights, even though not everyone might need the same treatment to achieve these rights (Modood, 2013).

Boucher and Maclure (2018) claimed that "the logic of fair integration is to lift obstacles to participation to common societal culture" (p.5), but since public spaces like schools are not culturally neutral, integration depends on the quality of the social interactions and relationships. Levrau (2018)

proposed the concept of *interpersonal ethos* to explain the daily interactions of ordinary people. Interpersonal ethos is like a social mechanism, an awareness that guides the citizens in their daily activities and **"**can be captured through concepts of respect, concern, integrity, dignity, self-esteem, honour, politeness, vulnerability, empathy, civic friendship, care, trust, solidarity, appreciation, openness, gratitude, decency" (Levrau, 2018, p.6).

Levrau (2018) asked whether in society equitable and fair practices depend on one's social awareness and concern. He considered the basic assertion that "people think of themselves as autonomous beings capable to be concerned with others and simultaneously capable of acting from such concern" (p. 6). Freire (1972) called this process "conscientization", an ongoing reflective process, a conscious continuous effort to develop a critical consciousness, "to read the world", to recognise the problems in society, discrepancies in power and inequalities and search for possible solutions. Further Kumagai and Lypson (2009) stated that critical consciousness is the main goal of multicultural education, that goes beyond the attainment of cultural competency. In the classroom critical consciousness is actualised when the teacher acknowledges one's social roles and responsibilities and models the reflective behaviour with the students during the class interactions. It entails "stepping back to understand one's own assumptions, biases and values and a shifting of one's gaze from self to others and conditions of injustice in the world" (Kumagai & Lypson, 2009, p.783).

To "read the world" of students coming from migrant background requires from the teacher to facilitate inclusive practices in the classroom. Through these practices the teacher will encourage the students to reflect on their life experiences and provide the support needed so that all the students could participate and influence the decisions taken in class and later in society (Kumagai & Lypson, 2009).

2.4 Digital equity

Exploring equitable practices in multicultural classrooms is critical within the education system since as a social structure the education system, have a sorting function it is not neutral (Modood, 2013). The students' missed learning opportunities could have profound consequences on their future lives. Teachers are the ones who are mostly involved in the students' education. They have a moral and ethical responsibility to teach all students fairly and equitably (Villegas, 2007). Rather than providing the same treatment for all as in equality, equity suggests enabling equal opportunities. Equity and justice are the main concern of multicultural theorists, a view which aims towards enabling equal opportunities rather than providing the same treatment for all (Taylor, 1994; Kymlicka, 1995, 2001; Parekh, 2006; Modood, 2013). The Glossary of Education Reform (online, http://edglossary.org/equity), states that "equity is the process; equality is the outcome," given that

equity – what is fair and just – may not, in the process of educating students, reflect strict equality – what is applied, allocated, or distributed equally".

In order to deliver equitable practices, students do not only need equal opportunities but also support (Niemi, 2021b). In today's digitised world this support could be achieved through access and use of digital technology. This was illustrated in various definitions of digital equity. Puigjaner (2016) defined digital equity as a social justice goal which ensures that every person in society have equal access and knowledge on how to use technological resources and the Internet. In 2008, Resta and Laferrière identified five dimensions which were required for digital equity including: (1) access to digital technology and the Internet, (2) access to culturally relevant resource, (3) opportunities to create and share, (4) teachers who can integrate digital resources and (5) access to high-quality research to enhance learning.

However, the process of facilitating digital equity does not depend only on the teacher in providing equal opportunities. Diverse students also need quality learning; that is, they need other types of support from the other subsystems to be able to make use of these digital opportunities in their learning. Quality in delivering learning opportunities with the use of digital technology is depicted in "the growth of learners' capacity to manage their learning and have a readiness to continue it based on previous knowledge construction" (Niemi, 2021b, p.3). Therefore, equity and quality go hand in hand to achieve equitable digital practices (Niemi, 2021a; Zielezinski & Darling Hammond, 2018). On the same line Zielezinski and Darling Hammond (2018) claimed that to ensure best outcomes when using digital resources with diverse students, the best inputs, that is quality digital resources are required to support the students' learning. These include providing a one to one digital device and high-speed Internet connection. Additionally, Zielezinski and Darling Hammond (2018) highlighted that extra support is required for those students who struggle most in their learning. The teachers' access and use of digital technology depends on ones' beliefs and strategies, the teachers' dispositions to facilitate equitable digital practices.

2.5 Digital access, digital use and inclusive practices across the three system's levels

The above-mentioned concepts serve to visually illustrate the relationship between the concepts and operationalise them to investigate the research area. The following dimensions were developed to investigate the teachers' beliefs and actions, their dispositions to facilitate equitable digital practices and inclusive practices within the encountered opportunities and challenges. The metaphor of the educational ecosystem (Niemi, 2021) provides a lens to investigate the teachers' dispositions when:

1 recognising differences in the students' digital access
2 using digital technology for teaching and learning

3 facilitating inclusive practices

across the three systems levels: the macro, the meso and the micro levels as illustrated in Figure 2 and Table 5.

Figure 2

The Teachers' Dispositions towards Digital Equity and Inclusion

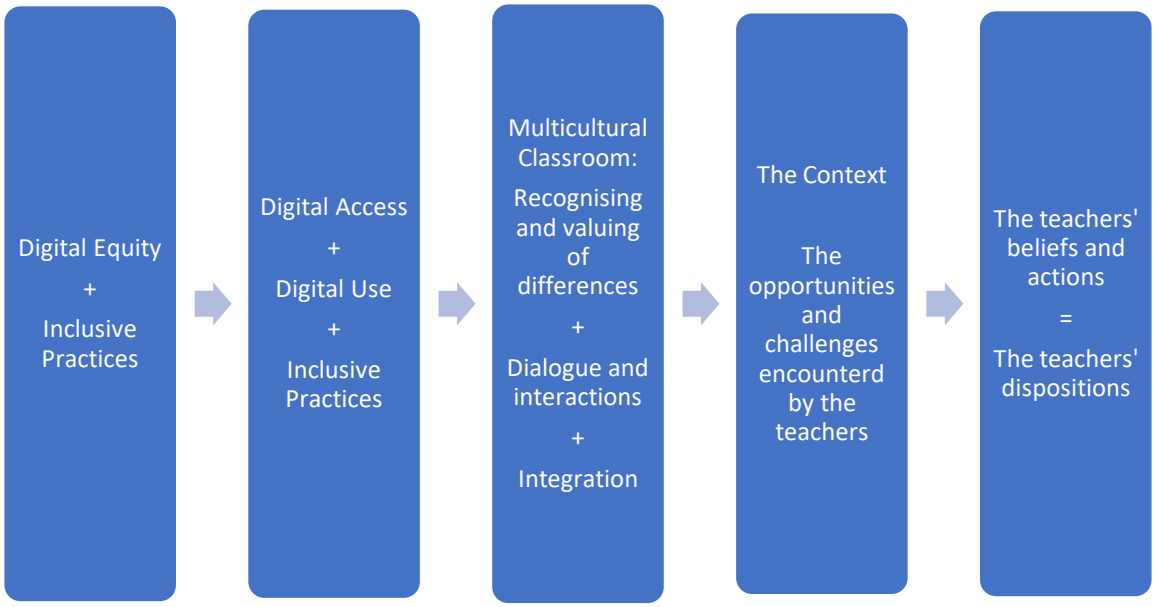


Table 5

The Teacher's Dispositions towards Digital Equity and Inclusion

System's levels	**Digital Equity**		**Inclusion**
	Digital access	Digital use	Inclusive practices
	Multicultural Classroom		
	Recognition and valuing of difference	Interactions and dialogue	Integration
Macro level			
Meso level			
Micro level			

2.5.1 Recognition of the students' differences in digital access

The teachers' dispositions to facilitate digital equity and inclusion in multicultural classrooms could be investigated from their beliefs and actions to recognise the students' differences in digital access.

2.5.1.1 The recognition of the students' differences in digital access at the macro level.

At the macro level Niemi (2021b) indicated that various subsystems influence the teachers' and the students' digital access. These included their digital competence and the availability of digital resources. Additionally, the nation's political aims on the availability of resources both in providing digital tools and in providing digital training, influencing the teachers' work at school (Niemi, 2021b).

Across Europe less than 40% of the teachers felt they are competent to use digital resources for teaching and learning (OECD, 2018). Additionally, more than a third of students aged between 13 and 14 did not hold the basic digital skills. A fourth of low-income family households had no access to digital resources and Internet connection, making the situation more difficult for vulnerable students to acquire their educational goals (OECD, 2018).

In the Maltese primary schools, from Year 4 onwards every student is provided with a one-to-one Tablet https://www.digital.edu.mt. However, in summer 2021, MISCO carried out a survey amongst Maltese families on the students' availability of digital resources. The results indicated that 5000 students did not have a computer, a laptop or a tablet to continue with their studies at home (Calleja, 2021). Having access to one-to-one device provides better learning opportunities than a class computer (Li, Zheng & Chiang, 2021). Access to a one-to-one device refers to classrooms where each student is provided with one device each, however there are variations with its usage. These variations depend on the time spent using it, on whether the students can take the device at home and the quality of the teaching and learning materials available on the device (Zielezinski & Darling-Hammond, 2018).

The teachers' dispositions, their beliefs and actions towards recognising the students' differences in digital access could be influenced by the Maltese policy for inclusion in schools which aims to "anticipate, value, and support diversity and learner differences and to create a sense of belonging for all learners and their families by developing a welcoming, understanding, caring, respectful and safe environments" (MEDE, 2019, p.13). Therefore, when recognising the students' differences the teacher could consider different support needed for the students' integration and learning. The teachers' awareness towards the differences in the students' digital access could contribute towards their participation through various possibilities with digital technology, what Gibson (1977, 1979) referred to as "affordances". Berthelsen and Tannert (2020) highlighted three

possibilities of digital affordances; the physical, the virtual and the social. The physical affordances of technologies are mediated through the material objects. The virtual affordances are either mediated through the use of artifacts, for example using a calculator on a mobile phone or through the virtual social interactions.

However, in Malta it is still considered a challenge to integrate students who do not speak or understand either Maltese or English (Sultana, Gellel & Caruana, 2019). Students coming from diverse cultural backgrounds are expected to assimilate in the education system. Hickling Hudson (2003) stated that the teachers' monocultural practices are difficult to change since some teachers are ill prepared for pluralist contexts and they expect diverse students to assimilate (Hickling Hudson, 2003).

On preparing Maltese teachers for diversity, Bartolo (2008) suggested several changes that are required by the teacher, such that teachers ought to reflect and challenge their assumptions about the students, they must be more open to change their practices and consider more student-centred teaching and learning strategies (Bartolo, 2008).

Through the teacher's reflections and one's autonomy to evaluate the quality of resources, on what is working and what is not when teaching the students (Niemi, 2021c), the teacher becomes aware of the students' differences in digital access. Reinikka, Niemi, & Tulivuori (2018) claimed that greater autonomy is required from the teacher to responsibly design a holistic learning experience for every student. Thus, the recognition of the students' differences in digital access depend on the teachers' autonomy to be mindful of the students and the class situation and make choices. These choices may include the type of available digital resources and how they are used in class.

To be mindful of the students' circumstances require from the teacher to reflect on the opportunities of using digital technology to integrate all students (Niemi, 2021b). For example, researchers claimed that learning motivation and the quality of the migrant students' writing with digital resources were improved when the teacher chose topics which reflected the students' diverse backgrounds, thus making use of inclusive practices (Chen, Carger & Smith, 2017; Spiteri & Chang Rundgren, 2017). To support the student's learning, the teacher reflected on the relevancy of the activity for the students. When migrant parents communicated online through the school blog, the parents supported their children's academic and social goals (Shin & Seger, 2016).

On the same line Ideland (2018) analysed the science textbooks used in schools to determine how science was regarded in these educational resources. She highlighted that the depicted scientific developments in these textbooks were depicted as pertaining to only certain parts of the world, that is the Western world, which is associated with white people. Ideland (2018) also found that earlier studies indicated that teachers in Sweden and the USA expected immigrant students to change the way of thinking, they were expected to think in a more rational way 'like white people do'. In their

expectations the teachers emphasized the colonial perspective which consequently influenced how diverse students were taught. The colonial perspective was further enforced when teachers associated scientific progress with white researchers. Consequently, by attending to these perspectives in the textbooks content, which are currently even available digitally, teachers can reduce or eliminate the achievement gaps and divides.

Additionally, even the school curricula and digital resources, require a more culturally relevant adaptation (Van Brie, Darmody & Kerzil, 2016). For example, in their attempts to learn from the Yolŋu students and to facilitate relevant learning opportunities for these students, teachers Van Gelderen and Guthadjaka (2017) developed the 'Warramiri website' (2011-2015) to encourage the spreading of the traditional language and culture of Yolŋu people. The aim of this website was for the students and the community to learn about their inheritance. The teachers adopted the digital resource to function as an interactive source of information including various resources relevant for the lives of these students. It included various resources for the Warramiri clan kinship. The Yolŋu people epistemologies and ontologies were also taken into consideration, therefore making learning opportunities culturally relevant and accessible to all. It was an opportunity to engage all students with their community, where historical sources and the school curriculum were intertwined. Through the creation of the website for Indigenous people, teachers looked for new learning opportunities and discovered new prospects to support underprivileged students. This is a way of recognising new, "sensibilities and ways of thinking so that we can understand cultures radically different from our own and thereby evaluate their contribution to human civilization" (Taylor, 1992, p.60).

The teacher's ability to understand the perspective of diverse students from his or her perspective from their *cultural filters* (Gay, 2013) allows for changes in the school resources, which consequently could accept cultural pluralism and respect for difference "without equating them with inferiorities or tolerating them with an air of condescension" (Gay, 1972, p.35).

The EU funds various digital projects which support interactions and the creation and sharing of knowledge. These include, Scientifix which promotes and supports Europe-wide collaboration in STEM (Science, Technology, Engineering and Maths), where students can jointly inquire on scientific problems. The Creations project which develops creative, engaging approaches to science education based on art. The Go-Lab initiative that facilitates the use of online laboratory and inquiry learning applications for science education in schools. Another project is the Toy Project, "Together Old and Young: An Intergenerational Approach" an online EU funded course which seeks to bring different generations, adults and young children together to share knowledge, skills, values and have fun. When facilitating collaborative online learning, the relationship between the home and school is also empowered. Additionally, the Playful Environment for Inclusive Learning Design in Europe (PLEIADE)

aims at strengthening the role of teachers as designers of inclusive collaborative learning activities and tackling the ever increasing cultural and socio-economic diversity in today's school population.

Other interactive resources include, resources for language learning, BINGO an animated cartoon style video with close ups of minute insects explaining bio-control methods and Yummy Physics illustrating the physics of food. The Sundial project which introduces various astronomical subjects through the prepared online lessons. "Penji protects the planet", a game-based learning activity on the importance of environmental sustainability. However, both these resources and the eTwinning, the EU milestone project for promoting both types of collaboration, do not have any multicultural content. Retrieved from https://ec.europa.eu/education/resources-and-tools/coronavirus-online-learning-resources/eu-funded-projects_en

2.5.1.2 The recognition of the students' differences in digital access at the meso level.

Through the reflections on the students' differences in digital access, teachers practise their autonomy, to provide all students with equal learning opportunities and support. However, it is also necessary for the teachers to be supported both by the school and by the community. Niemi and collegeaues (2018) highlighted that the factors which influence the teacher's autonomy when using digital resources were: the school leadership, the collaborative culture within the school, the partnership with the parents and the dialogue between the various networks. The teachers' autonomy to make choices also depends on the level of trust enjoyed between these subsystems and the teachers' working conditions.

In diverse and changing societies, a wider range of professional competencies are required from the teachers, including those to interact with different partners, both inside and outside the school, within the community. At the meso level, the school community level, digital access is influenced by the teacher's leadership to provide support and build a community of learners (Niemi, 2021b).

Thus, it is also important to include the students' community through the school support, especially when the students' parents or guardians are unable to support their children or feel unwelcomed to participate in the school activities (Adair, Tobin & Arzubiaga, 2012). There are various reasons why parents may seem not to care and involve themselves in their children's school activities. Pakistani and Bangladeshi parents were referred by educators as 'hard to reach', not aware and not involved in their children's learning. In their study Crozier and Davies (2007) found that these parents were not 'difficult', 'obstructive' or 'indifferent' – as the 'hard to reach' behaviour implies, but it was the school system which hindered accessibility for these parents.

On the same line, but in a different context, in Malta 'hard to reach' Somali parents were interviewed and asked about their children's education (Calleja Ragonesi & Martinelli, 2013). These

parents were aware that their children required support. They accepted to participate in the research interviews as a way of voicing their needs. The results from this research indicated that these parents not only required cultural capital on how to look for help to support their children but also depended on their children to be informed about their progress. Further, it was noted that the school messages delivered by the children to their parents were only read and explained when a social worker was available. Therefore, most parents were not aware of the difficulties their children were encountering in their learning and assumed that once they progressed to the next scholastic year, they were doing well (Calleja Ragonesi & Martinelli, 2013).

In the PISA report, it was found that when the schools and communities helped migrant students overcome the encountered obstacles and settle down in the new environment, they experienced a better integration (OECD, 2015a). Further it was indicated that migrant students had 3.4 times more chance of repeating a grade compared to non-migrant students. The repetition of grade and the streaming of students according to their educational performance are the main issues that affect migrant students' learning which leads to a higher chance of dropping out and hinder the student's integration (OECD, 2015a). Further it was also found that streaming tends to increase inequalities since students coming from disadvantaged backgrounds are more likely to end in the lower achieving classes. Through the process of streaming migrant students tend to end up in less demanding courses, limiting their skills development and opportunities to future high-status professional occupations (OECD, 2015a).

2.5.1.3 **The *recognition of the students'* d*ifferences in digital access at the micro level*.**

At the micro level, Edwards (2017) highlighted that it is only through their reflections that teachers could become aware of their practices and be able to make changes. The teacher's openness to change depends on one's beliefs that all students can learn and are able to make changes according to their different life experiences (Garmon, 2004). On the same line Banks and Banks (1995) stated that to enhance the students' sense of belonging in the new country, it is critical for the teacher to reflect on the learning content in light of the students' different life experiences. This is important for the teacher to consider because the students' background, their cultural heritage influences their learning. For example, some cultures assign higher esteem to the male figure in the family. The father or male siblings, figures are often considered more knowledgeable in the use of technology (Yuen, Park, Chen & Cheng, 2017). Older siblings are considered as mediators in family issues, they are the ones who facilitate activities for the younger siblings in the family (Fuller, Lizárraga & Gray, 2015). On the other hand, girls living in poverty were found at risk of being excluded from using digital technology (Palitza, Erwin, Godia & Amuriat, 2007), leading to lack of

access to learning. Additionally, in some cultures, girls tend to have multiple roles within the family and the community leaving them with less time to dedicate to their learning.

Researchers Fuller and collegeaues (2015) found that Latino parents practised 'joint media engagement' when using digital resources, a culturally influenced tendency to join their children during digital activities like online reading and playing online games. Learning is bi-directional and during these interactions the parents' and the child's roles change. It was found that the parents were also learning from their children how to use the technology and the culture of the new country. These children were viewed by their parents as agents for change.

Thus, the differences in students' digital access could be influenced by the micro level structures such as by the parents' values, their beliefs and expectations from the school. In a case study with 22 Chinese students and their parents, the cultural dimension of the Confucian heritage was found to influence the roles of the teachers, parents and the students' use of technology (Yuen, Park, Chen & Cheng, 2017). The findings revealed that the family cultural values influenced the students' access to suitable digital resources, a critical aspect in digital equity (Zielezinski & Darling-Hammond, 2018). Related to their Confucian cultural heritage which demands respect for authority, both the parents and the students passively depended on the teacher for school instruction (Yuen et al., 2017). The problem arose when some parents may not have had the digital skills to support their children. On the same line, in an ethnographic study which took place in China with teachers and parents, it was found that due to their diverse social backgrounds not all parents had the required communication skills to participate online. Further some teachers considered online parental communication as interfering with their personal life and preferred to keep a professional distance instead (Huang, 2017). These differences in expectations between the school and the families may have led to missed learning opportunities for the students.

Parental involvement depends on their beliefs regarding the education of their children. Within the educational system, such parental beliefs could "cause serious dysfunctions if information is not crossing borders and remains in segmented systems" (Niemi, 2021a, p. 21). Diverse students and their parents might not be familiar with the local social structures and the local language which might influence their access to digital technology. Additionally, they might have different life experiences connections and expectations. For example, PISA reported that the migrants' exile experience, fosters great expectations and hopes for the migrants' children (OECD, 2015a). These expectations become a self-fulfilling prophecy for the students who are more willing to exert greater effort into their learning and seize the educational opportunities for better life options.

Through dialogue the teacher tries to establish trust and collaboration with the parents even if the family and the school values are not similar. Niemi (2021) claimed that legitimacy concerns are raised based on who is included and excluded from the flow of information. Thus, within an

educational ecosystem mutual understanding is important to help parents feel that their voice is heard and they are included in the learning process of their children. Diversity in the migrant parents' beliefs and expectations demands a new way of interacting a "shift from focusing on control to focusing on collaboration and trust between actors" (Niemi, 2021a, p.24).

To establish connections with migrant parents and include their children researchers tried to recognise and value their diverse epistemologies and practices and using these differences as the foundation for the new learning experiences. Fleer, Adams & Gunstone (2019) attempted to smoother this socio-cultural transition with immigrant students from Dinka playgroup in South Sudan who immigrated to their host country Australia. A cultural-historical methodology was adopted, where 42 hours of digital video observations of 34 students, 22 guardians and their teacher were analysed. The playgroup provided the space for cultural engagement with Western ways of knowing, such as introducing scientific concepts. They sought to find out the diverse epistemologies and practices of the immigrant students and their families and then applied them as the foundation for teaching practices in the receiving country (Fleer et al., 2019). To provide equitable learning practices, the students were supported by their ways of knowing and doing things. They identified various 'transformative' teaching approaches to support the students' learning, both physical and verbal and made use of scientific narratives to connect with and engage the students to create new forms of knowledge. The teachers' dispositions to empower the relations helped students concretise their classroom digital activities by considering the roles these students observed daily at home and in their community (Voss, 2018).

When the teacher recognises the students' differences, their cultural differences could be valued and made visible (Gay, 2002). In such ambivalent interactions the teacher uses "the cultural knowledge, prior experiences, frames of reference, and performance styles of students coming from different cultural background to make learning encounters more relevant to and effective for them. It teaches *to and through* the strengths of these students" (Gay, 2010, p.29). In digital environments this means that the teacher becomes aware of the students' strengths and takes the risk to establish digital connections with the students and their families coming from diverse cultural backgrounds with digital access.

Further Gay (2010) stated that in the classroom, it is essential for the teachers to become aware of the cultural differences that exist between them and the students. In 2013 Gay further suggested matching the pedagogical strategies with the students' learning styles. One of the most common pedagogies applied by the teachers to match the instruction with the students' learning styles is to explain content by giving examples, what Gay (2002) called *pedagogical bridges*. These pedagogies link previous knowledge with recent knowledge, the discovered with the undiscovered knowledge, ideas with realities.

Diverse students' perception regarding their academic performance especially with respect to particular subjects is influenced by their identities. Students' identities are important to recognise because they are important for the students and recognition is the student's fundamental right (Modood, 2013). To enable digital access, the teacher needs to continuously reflect on their pedagogical beliefs and their practices in relation to the student's situations. The students' different life experiences are not to be missed and the teachers must be able to reflect on and learn from them, to be able to provide the type of support these students need. The teachers' reflections are fundamental because they influence the students' perception regarding their academic performance.

When teachers reflect on their students' situations, they realise what type of support their students need. Tupou and Loveridge (2019) indicated that minority Pasifika students were less likely to continue their computer studies in higher education and consider working in a digital environment, even though it was important for their future employability and social inclusion. The aim of this study was to find out how to engage these students in computer studies. The findings indicated that although Pasifika students had access to digital technology, they were unaware of its potential and used it only in a consumerist way. The findings indicated that Pasifika students needed relevant access to pursue with their computer studies. They required a purposeful pedagogy to value computer studies and engage with digital technology in a more creative way. It was the teachers' role to look out for ways to meet the students' needs to make them responsible for their learning with technology thus facilitating digital access.

In providing digital access, Voss (2018) claimed that teachers must be open to learn about the students' different ways of learning. She stated that care should be taken on the nature of the activity when applying digital collaborative work in class since not all students have the same collaborative skills to participate in group activities. Diverse students may require more time or different schedules. Additionally, the teacher needs to think how the students are perceiving the interactions, the value they give to a subject matter, to understanding how students learn what they are learning from the collaborative activities.

According to Gay (2002) it is required from the teachers to reflect and determine "what ethnically diverse students know and can do, as well as what they are capable of knowing and doing. This is often a function of how well teachers can communicate with them" (p.111). For example, students coming from ethnic and cultural backgrounds might solve problems through pooling of resources, which is quite different from the Euro-American individualistic way of learning. Diverse students' communication, thinking and values styles are culturally encoded, which influences their socialising and learning (Cazden, John & Hymes, 1985). Gay (2002) highlighted that teachers are aware of the diverse students' communication styles that might be different from the local students. She distinguished between a passive-receptive style of communication and active-participatory one.

The students could be intellectually silenced if they are not using their natural way of communicating, and negatively influence their efforts. Additionally, the teachers' understanding of the students' communication styles is critical, to establish specific protocols of participation during classroom activities, otherwise some students might be left out or misunderstood for their behaviour (Gay, 2002).

2.5.2 The use of digital technology for teaching and learning

The teachers' dispositions to facilitate digital equity and inclusion in multicultural classrooms could be investigated from the teachers' beliefs and actions when teaching and learning with digital technology.

2.5.2.1 The use of digital technology for teaching and learning at the macro level.

When using digital technology for teaching and learning the teachers' beliefs and strategies could be influenced by the availability of digital resources in schools. At schools the power relations could be seen in how resources are used and how the space and time are utilised by the teachers and students. Power is translated in the school time table, the duration of each lesson, the bell ringing at the end and beginning of activities, the chosen subject content and the modes of assessment (Banks & Banks, 1995). These might all contribute towards the achievement gap between the local and foreign students. Foreign students might not be familiar with these practices, and might not have the social and cultural capital to take advantage of the presented opportunities (Darmanin, 1995).

This situation was also illustrated in the PISA (OECD, 2015) report, where it was indicated that immigrant students' performance was weaker than the local ones. The gap in performance was found to be wider in reading than in maths and problem solving, indicating that the language barrier and the communication aspect may be the reason for this discrepancy in performance. Students who did not speak or read the language of assessment obtained poorer results. It was suggested that an effective way to integrate students both culturally and linguistically was to encourage young children to attend early learning programmes. However, it was found that among the participating OECD countries there was a low turnout of immigrant families sending their young children to these programmes. This was possibly because early education programmes were not available in their country. Foreign parents may not be familiar with the new school practices, thus might not have the social and cultural capital to take advantage of the opportunities presented to their children (OECD, 2015).

Additionally, when using digital technology for teaching and learning the digital affordances could be used by the teachers for the students' optimum needs. According to Zielezinski and Darling-

Hammond (2018) to provide the students with equal opportunities and quality learning opportunities with digital resources, the teacher must apply the 21st century skills and consider higher order skills such as problem solving, analysing and synthesising. These activities should be given priority over basic digital skills such as drilling and memorising. Some teachers may practice only basic digital skills or repetitive tasks with the students (Jara et al., 2015; Lawless, 2016). Diverse student's learning is enhanced when highly interactive digital tools are used to analyse the online data, since students are supported to engage with complex content and are given the opportunity to show their understanding through various digital modes (Zielezinski & Darling-Hammond, 2018).

This was illustrated in a study in Texas involved 48 at-risk students participating in a 55 min daily activity for six lessons. They followed an intervention cycle of engaging, exploring, explaining and elaborating with the help of digital resources. During the cycle students interacted with simulations while working on graphs and tables. Those students who followed the intervention did better in their learning than those who followed traditional ways. Bos (2007) concluded that "results are deeply embedded in the core of the learning process and the necessity to create an environment that involves all students in high level thinking skills and to promote problem solving versus a more drill-practice approach" (p. 366). Multimodal learning is being associated with experiences that allow students to (1) engage in relevant concepts and ideas through a variety of modalities (e.g. images, videos, text, embodied experiences), (2) demonstrate their knowledge using a combination of modalities (e.g. speech, written text, drawings, gestures, physical artifacts) (Niemi, Pea, & Lu, 2023).

2.5.2.2 The use of digital technology for teaching and learning at the meso level.

When using digital technology for teaching and learning the teachers' beliefs and actions could be influenced by the school community, the students and their parents' languages, needs and abilities. At the meso level, the school community level it is the teachers' role and responsibility to work towards enabling interactions taking place at school (Niemi, 2021b). In this process contradictions are frequently experienced, such as the students' inclusion and exclusion experiences as illustrated in Torbjørnsen Hilt (2017) fieldwork analysis in two upper secondary schools in Norway. Torbjørnsen explored the contradictions in the processes of inclusion and exclusion of newly arrived students. These students with minority languages, who spoke a different mother tongue other than Norwegian or Sami, were considered susceptible to being marginalised. To provide the students with equal learning opportunities they were segregated according to their tests results. This practice was applied with good intention. Teachers believed that to be able to join the mainstream it was critical for the newly arrived students to first learn the language of instruction, so initial separation was required for the benefit of the students. They considered learning basic skills and the language of instruction as the foundation for their future learning (Torbjørnsen Hilt, 2017).

Students were given the opportunities to thrive, however the results indicated that the 'introductory classes' approach to integration hindered these students from feeling included in school. Some students established evident stigma towards the introductory classes, particularly those at the lower levels. Besides segregation also influenced the newly arrived students' interactions. Although they were included in the local schools, they were excluded from participating or having contact with mainstream students, since they were in special classes. The students felt frustrated in their effort to thrive in this education system. They continuously compared their achievement with others and felt as if they would never reach their educational goals and be part of the local system (Torbjørnsen Hilt, 2017).

This situation requires constant interactions between the different actors taking care of the students within the educational ecosystem. If different parts of the educational system are not working together, some students may feel excluded (Niemi, 2021a). Gay (2002) suggested that to facilitate the students' learning teachers might need to confront these communication differences and interpretations, by preparing different procedures for diverse students' participation. For example, the teacher can encourage "students to make use of language that they were typically asked to suppress but is common within their communities" (Zielezinski & Darling-Hammond, 2018, p.1089). When diverse students presented their work during a learning activity with digital resources, they were perceived as experts by their families. Additionally, teachers had the opportunity to learn from these students (Emert, 2014; Zielezinski & Darling-Hammond, 2018) and at the same time their parents were given equal opportunity to participate in their children's education, a way of integrating in society, making connections with the school.

2.5.2.3 The use of digital technology for teaching and learning at the micro level.

At the micro level, the use of digital technology encouraged dialogue between the teacher and the parents encourages partnership.

Partnership is an intentional teacher's activity, where the student learning and wellbeing are considered important by the teacher and the parents. Through partnership the teacher becomes aware of the student's strengths and weaknesses and sheds light on enabling better students' school performance. However, in fostering partnership, as part of the collaborative process, one might also encounter contradictions and resistance (Harju & Niemi, 2018). Partnership is a risky and time-consuming process. It requires that partners trust each other and are ready to communicate and work on differences, where differences are considered valuable. A space is developed where mutual respect is created and professional dialogue takes place (Niemi, 2016; OECD, 2015a).

To encourage migrant parents to support their children in their learning, Shin and Seger (2016) examined how migrant parents assisted their children in their writing skills through the school

blog. They found that to enable equal learning opportunities, besides having access to digital resources, teachers were required to change their pedagogical beliefs on how to reach this group of students and their parents whose social and cultural backgrounds might be different from theirs. Shin and Seger (2016) claimed that teachers need to reflect and be aware of the social, cultural and political background of the students' family lives when designing digital activities. They have to reflect on these conditions since they influenced how parents of migrant children participated in school, when using digital technology in supporting their children's academic and social goals.

Therefore, the teachers need a disposition to learn from students and their parents to make changes and a culture of risk taking is critical for change. Niemi, Kynäslahti and Vahtivuori-Hänninen (2013) found that when teachers were allowed to take risks with new digital resources, they created a learning environment and empowered their students. Six main qualities were identified as required for successful use of digital resources in this regard: (1) considering digital resources as part of the school culture, (2) where the head teachers and teaches had a clear vision on how technology could to be used, (3) where teaching and learning approaches encouraged participation and empowered all students, (4) a flexible curriculum was considered (5) the school invested in communication with parents and the local community and (6) the head teacher and administration continually supported the teachers' dispositions to use digital resources, where a culture of sharing and risk taking was accepted.

Within the educational ecosystem, teachers are seen as learners who are constantly developing their expertise according to the demands of the profession (Niemi, 2021b). Teachers are responsible for the whole process of the student's learning and not only towards achieving the final grade (Niemi, Toom, Kallioniemi & Lavonen, 2018). However, teaching and learning in multicultural classrooms is challenging for the teachers to conceptualise the differences in socio-cultural backgrounds between them and the students (Carter and Darling-Hammond, 2016).

Literature illustrated that to support each student's learning with the use of digital resources, the teacher practised three main pedagogical roles (Niu & Niemi, 2019). These included facilitating, coaching and scaffolding. When facilitating learning teachers provided support and held an 'active backstage' role. When coaching, teachers praised, asked questions and gave feedback to the students. During scaffolding teachers divided the task in smaller steps and provided a checklist for every step. Through coaching and scaffolding the teacher enabled equal teaching and learning opportunities and provided support when facilitating learning to the students' diverse needs. These roles provide the conditions required by diverse students and include considering; "the preferred content; ways of working through learning tasks; techniques for organising and conveying ideas and thoughts; physical and social settings for task performance; structural arrangements of work, study and performance space; perceptual stimulation for receiving, processing, and demonstrating

comprehension and competence; motivations, incentives and rewards for learning; and interpersonal interactional styles" (Gay, 2013, p. 113). Thus, the teacher's role changes from a "Sage on the Stage" to "Guide on the Side" and a "Meddler in the Middle" (McWilliam & Haukka, 2008).

Gay (2013) suggested to create culturally relevant learning opportunities for the students. However, some teachers may doubt the validity of implementing culturally responsive practices and may resist such adaptations. They may consider culturally responsive teaching as racist because the differences are highlighted, consequently they may only consider 'safe' areas related to cultural diversity, such as "cuisines, costumes and celebrations" (Gay, 2013, p.56). Teachers might believe that diversity is an obstacle rather than a resource for learning and may not feel prepared to teach ethnically diverse classes.

Contrary to such beliefs, highlighting differences is of benefit for the students because the racist mentality is fought back. This was discussed during a preliminary investigation when Acosta and Denham (2017) explored a digital game designed to teach about aspects of African enslavement in the American history. This game was meant to implement both academic and multicultural content and digital games were considered a good means of engaging students and share their family history. This digital game-based learning experience was intended to recreate history, depicting racial oppression of people of African origin. Consequently, Acosta and Denham (2017) highlighted that it is critical for the teachers to be cautious when selecting digital resources for students, so as not to reproduce widespread stereotypes and encourage the negative perceptions associated with the lives and experiences of migrants.

Acosta and Denham (2017) stated that from the African American students' point of view it was unclear whether the selected digital game met the educational goals and the well-being of these students. They highlighted that digitally reconstructed stories of historical oppression could be harmful for the students, if the lives of immigrant people are depicted as problematic. As an example, it was illustrated that in digital games black and Latino people were almost always attributed with stereotypical roles of victims or violators. Margo (1990) confirmed that the strongest negative narratives influencing the students' educational achievement were related to their identities. "Culturally responsive teaching requires replacing pathological and deficient perceptions of students and communities of colour with more positive ones" (Gay, 2013, p. 54). Using digital resources which are framed in negativism is not constructive for the diverse students' educational achievement.

Enforcing these stereotypes through the use of digital resources in schools, such as the digital game-based learning, discourage diverse students from integrating in the school activities. The teachers' dispositions and their inclusive beliefs enable them to see the students as prejudiced in these digital games, therefore technology was not supporting their learning. Accordingly, Acosta and

Denham (2017) recommended that in the curriculum more culturally relevant digital games and instruction must be included in order to develop the sociocultural awareness and competence for all students.

Gay (2002) stated that the teacher adopts cultural sensitivity when (1) developing the foundation knowledge about the students' cultural diversity and knowledge about cultural diversity as a subject, (2) include in the curriculum content the ethnic and cultural diversity (3) care for the students and build learning about their communities (4) communicate with the students and (5) match the instruction. On the same line Nieto (2017) suggested that in re-imagining multicultural education, the teachers must show love and care for each student.

The most influencing factor when teaching and learning with digital resources are the teachers' constructivist student-centred beliefs, rather than the traditional ones (Chai, Chin, Koh & Tan, 2013; Liu, Lin, Zhang & Zheng, 2017; Totter, Stütz & Grote, 2006). These beliefs are critical because they focus on the student, respecting one's life experiences, knowledge, skills, dispositions and digital literacy (Zielezinski & Darling-Hammond, 2018). When focusing on the student's learning outcomes and on the potential of technology to influence these outcomes, learning was being developed on what the student already knew, on their experiences. These student-centred approaches enabled the teachers to develop student directed strategies where the students were given "the opportunity to drive their own learning, create original digital content, engage meaningfully with content knowledge, or hone their digital literacy skills" (Zielezinski & Darling-Hammond 2018, p. 1091). It is a metacognitive process where the student regulates and monitors one's learning. The student has an active role in his or her learning, to self-regulate and to know how to use the available resources. Student-directed learning demands persistent effort and a 'can do' mind set, the student's self-efficacy (Bandura, 1986; Niemi, 2021a).

In Emert's (2014) study, 30 refugee students were given the opportunity to progress, regardless of the different languages, cultures and values they had landed with in the new country. During the introductory classes the teacher scaffolded the students' learning and provided continuous encouragement. The students were encouraged to direct their own learning. Diverse students benefit from learning activities that encourage them to reflect and monitor their own progress. This is especially significant when students were given the opportunity to decide for themselves how an activity should be done (Watson & Watson, 2011). The process of constructing new knowledge offers students an opportunity to consider various views and ideas, instead of accepting only one solution. It gives students the opportunity to find out why the problem exists in the first place and whether there are other related issues. The use of digital resources allows students to interact with new online information and find new ways to represent it (Zielezinski & Darling-Hammond, 2018).

2.5.3 The facilitation of inclusive practices

The teachers' dispositions to facilitate digital equity and inclusion in multicultural classrooms could be investigated from the teachers' beliefs and actions towards inclusive practices.

2.5.3.1 The facilitation of inclusive practices at the macro level.

To facilitate inclusive practices with the use of digital technology, requires different teaching approaches and different types of support (Niemi, 2021).

Considering that nowadays students from various ethnic and cultural backgrounds learn together in the same classrooms, it is the teacher's responsibility to facilitate inclusive digital practices to encourage integration. In order to achieve this, Ioannou and Constantinou (2018) exposed students to the others' point of view by practicing an interpersonal competency called social perspective taking (SPT) which allows one "the opportunity to actually see and experience the world as another person experience it" (Jabali, 2015, p.125). Their intention was to encourage interactions, respect towards diversity, and eliminate stereotypes and prejudices. They wanted to highlight the importance of collaboration and encourage all students to understand their peers' values and points of view.

In their study with 44 students from a public school in Cyprus, Ioannou and Constantinou (2018) showed how through the use of interactive tabletops, students from various cultural backgrounds, interacted with their classmates to find solutions when presented with social problems. Using the national language of Cyprus, data was collected from interactions with the interactive tabletops and from a questionnaire on social perspective taking (SPT). The interactive tabletops encouraged students to engage collaboratively through playful interactions and also play roles and discuss the topics thoroughly. Everyone had equal opportunities to participate in the activity and the interactive tabletops supported the students in their interactions.

Practicing SPT with the interactive tabletops seemed to alleviate the tension in class since the activity was looked upon as a game. Additionally, the activity encouraged empathic interactions among the students and offered a means of communication for the newly arrived students who came from different backgrounds and conflict stressed environments. The students' encounter with the unfamiliar ideas, perspectives and identities, what Piaget called 'cognitive disequilibrium' encourage personal growth and new learning opportunities for the students. The 'strangeness' in others, the disequilibrium, stimulates in students what Habermas calls a 'hypothetical attitude' and create a 'pedagogical discomfort' (Boler, 1999). The teacher's inclusive dispositions enable interactions through digital resources and help the students understand and empathise their classmates' living situations.

Through these digital interactions, students are not only taught the basic digital skills, but also to reflect with the teacher and the other students on how to apply these skills in their everyday life. One of the actions to develop a digital eco-system education and improve the digital competence in Europe for the digital transformations, was the development of the Digital Education Action Plan (2021-2027). This plan includes a SELFIE for TEACHERS tool https://education.ec.europa.eu/focus-topics/digital-education) which is based on the DigCompEdu framework (Redecker, 2017). This tool includes 32 items, which helps the teacher identify one's strengths and weaknesses in the digital competence. Through the SELFIE for TEACHERS, the teachers take the initiative and discover how they can improve their digital competence. However, the items in this reflection tool seem to consider a homogeneous group of students, when in current classrooms there is a much more diverse population of students. Therefore, more culturally sensitive digital resources and practices should be considered.

On the same line, in Price-Dennis and collegeaues' study (2015) refugee students were more engaged when they were given the opportunity to participate in high-challenging activities. In this activity students had to rely on each other to complete these activities. It was an opportunity for them to learn through collective inquiry, to ask for help and work together, especially when the task seemed difficult. The students knew they had different levels of technical expertise. Through the interactions they relied on each other for help, and built on each other's strengths to find solutions. Together they created a collaborative atmosphere, a 'can do' attitude to fulfil their knowledge gaps. Carter & Darling Hammond (2016) concluded that when delivering a challenging curriculum, additional learning opportunities were created for diverse students. Zielezinski and Darling-Hammond (2018) highlighted that students coming from low socio-economic backgrounds profit from activities which are highly interactive and encourage discovery. Equitable digital practices are achieved when all the students are participating in the learning experience and are supported by the other students in the classroom. Therefore, learning by discovery or inquiry enables equitable teaching and learning with digital resources in multicultural classrooms.

However, as Vassallo (2021) illustrated some Maltese people are still far from practising inclusive practices. Still in the colonial aftermath, in the period of *transition and translation* (Gandhi, 2020) Malta is moving slowly towards disowning the effects of colonial inheritance. In Malta ideological forms of nationalism which lead to racism and exclusions are still present. This is seen in the daily empty displays of nationalism, harming others, such as people coming from diverse cultural backgrounds in focusing on issues related to cultural symbols, rather than crucial matters like reforming the education system to a more inclusive one (Vassallo, 2021). This may be due to having been immersed in a "culture of silence" resulting in some Maltese people are still hesitant to work on these injustices, where the influences of colonialism are particularly deep-rooted and hard to modify

(Mayo, 2017). These have implications in the classroom as reflected in the teachers' beliefs and actions as by whom and how learning could be achieved (Kim et al., 2013). It is the teacher's role to encourage reflection on these injustices in class; to encourage students to ask questions and discover new knowledge together. Thus, rather than providing every student with equal learning experiences, the teacher needs to set realistic learning outcomes for each student, where the curriculum is relevant and students are involved in the learning process (Niemi, 2021a).

When facilitating inclusive practices with digital technology teachers need to become familiar with the students' "cultural values, traditions, communication, learning styles, contributions and relational patterns" (Gay, 2002, p. 107). During collaborative activities it is critical for the teachers to know about the preferences of the various ethnic groups, and how these preferences influence the class activities, how students are expected to behave with adults and whether expectations varies between genders. Gay (2002) suggested that teachers should practise *culturally responsive caring* by applying *cultural scaffolding* when teaching diverse students. This involves understanding the students' cultural backgrounds as a starting point and then expand further their learning. On the same line, after analysing the interviews, journals and observations of 19 preservice teachers, Leonard and Leonard (2006) found that teachers' dispositions for inclusion required from them to make an extra effort to integrate all students in class activities irrespective of their background. It was highlighted that "inclusive teachers make sure *all* students—across ability, native language, social class, and so on—have equitable access to learning opportunities in the classroom" (Tharp et al., 2000, p. 4).

To investigate the class interactions when using digital resources, Price-Dennis, Holmes and Smith (2015) investigated how students coming from diverse cultural backgrounds engaged in inquiry activities. In their study, they decreased the pull-out time for remedial teaching so that all students could participate during the same time frame. During the designed activities all students contributed, since their teachers considered their individual learning needs and prepared the activities accordingly. The activities encouraged higher order thinking skills and every student was considered capable of contributing to the knowledge creation (Price-Dennis et al., 2015). For example, during one activity, all students collaboratively viewed TED talks, shared and analysed the information and prepared their speeches on a selected theme. TED (technology, entertainment and design) talks are recorded public speaking presentations https://www.techtarget.com/whatis/definition/TED-talk#:~:text=A%20TED%20talk%20is%20a,often%20called%20%22TED%20talks.%22.

Through the interactions with their classmates they gained confidence and feedback when delivering their speeches. Teachers believed that when adopting a relevant and rich curriculum, students were challenged to thinking critically, thus challenging the deficit labelling, which diverse students bring with them in the classroom (Reich, 2019). When teachers believed that all students

can learn, they influenced the students' potential for learning, making the classroom more conducive to successful inclusive learning opportunities.

Collaborative digital inquiry was also an opportunity for the students to give feedback to each other. It was found that students reflected and gave feedback to each other when they played 3D simulation games (Koivisto, Niemi, Multisilta & Eriksson, 2015). They suggested that for the best learning opportunities, simulation games should provide high levels of interactivity, the possibility to receive feedback and visual authenticity. Additionally, the teachers' dispositions to change their pedagogical approaches also created a positive climate in the classroom, encouraging all students to participate in the digital storytelling activity, even though there was not a common language (Emert, 2014; Niemi, Niu, Vivitsou, & Li, 2018).

Through digital interactions, students discover new insights and together create new knowledge and improve their digital skills. This was illustrated in China and Finland when the students' acquisition of 21st century competencies through digital storytelling was investigated during a math lesson. Data was collected quantitatively and qualitatively from teachers and the 10- and 11- year old students. The findings indicated that students learned not only the math topic but also how to work in groups. Additionally, the teachers noticed that since the activity was more relevant to the students, they were more motivated and engaged in their learning (Niemi, Niu, Vivitsou & Li, 2018).

This process could also be developed through the digital resources and practices, such as through digital storytelling (Niemi & Niu, 2021). Digital storytelling refers to using digital technology to tell a story or present some ideas. https://research.com/education/digital-storytelling. Digital storytelling is also a way of acquiring the 21st century skills (Niu & Niemi 2019). It cultivates the students' higher order and critical thinking skills and encourage teamwork (Robin, 2008). Students engage critically through the process of writing and reflection.

Further, when teachers practised digital storytelling they encouraged more positive interactions among diverse students. Through digital storytelling, the students had the opportunity to share their difficult experiences, the ways they had been inferiorised, their ways of oppression. This served as an opportunity for the students to express their differences "from the 'inside' by the victims" (Modood, 2013, p.39). Through the digital storytelling activity, students identified their self-worth and their agency when they shared their personal stories (Emert, 2014).

Positive interactions were encouraged when these were meaningful for the students and digital storytelling enabled all students to make learning more personal and meaningful. This was discovered when Niemi and Niu (2021) wanted to find out what kind of learning experiences enhanced the students' self-efficacy in mathematics. They conducted a study with 121, 10-11-year olds students in China. Quantitative data was collected from questionnaire and qualitative data from

teachers' and students' interviews and observations. The results indicated that when the students perceived the meaningfulness of the mathematical activities through digital storytelling, their self-efficacy increased. Through the interactions during the digital story telling activity, the students could perceive learning as meaningful.

Digital storytelling encourages the students' engagement in their learning as opposed to exam-oriented approaches to learning. Students can create new content when interacting with others, encourages the student's engagement, one's attitudes towards learning and influence one's self-efficacy. Learning during digital storytelling is student directed, where the student can evaluate one's learning as opposed to exam-oriented approaches to learning. In Malta the Learning Outcomes Framework was introduced (MEDE, 2013) to lighten the emphasise on exam-oriented approaches to learning and focus more on the students' individual learning needs.

Gay (2002) highlighted that during the interactions, different ethnic groups may engage differently with the tasks. Among the various types of communication styles Gay (2002) highlighted two: topic-centred and the topic-chaining communication styles. The topic-centred communication style is related to how students engage in Euro-American schools while the topic-chaining is typical of students coming from Africa, Asia, Latin and Native America. In addition, Voss (2018) addressed the roles taken by these students and the way diverse students collaborated when using digital technologies. She noted that the roles students took during the activity were influenced by their background characteristics such as ethnicity, class and gender. The students assumed certain responsibilities which reflected their social background thus influenced their engagement in the learning process. The status differences depending on race, gender and social class can influence the students' interactions (Banks & Banks, 1995). As a consequence, some students, those who have low social status could be excluded.

To support effective collaborative learning Dillenbourg (2002) suggested that teachers should *structure* and *regulate* the interactions, what Gay (2002) called the *protocols for participation.* Collaboration scripts enables the teacher to structure the activity (Schmitt & Weinberger, 2018). When using a script, students know what is expected from them and waste less time in settling down (Scheuer et al., 2010). On the other hand, regulations are usually set prior to the lesson is delivered. Regulations encourage collaboration and reduces conflicts (Phielix et al., 2010). It is important for the students to be able to see their progress through the tool used to regulate the interactions. An example of a regulation tool is the star chart (Gijlers et al., 2010). It is important for the students to see these tools as a motivation to change their behaviour, to encourage learning and positive interactions (Janssen et al., 2011).

Schneider and colleagues (2021) developed the cognitive-affective-social theory of learning in digital environments (CASTLE) and highlighted that the use of digital resources activates the social

interactions in students, which lead to increased social, affective, motivation and meta cognitive interactivity. Engaging students in argumentative discussion, triggers the epistemic, argumentative and interactive qualities of the discourse (Weinberger & Fischer, 2006). The epistemic quality of the discussion refers to the students understanding of the concept to solve problems. The argumentative quality indicates how students develop their reasoning, and the interactive quality refers to the transactive quality, how much students build on one another reasoning.

Further Voss (2018) stated that the use of digital technology makes it possible for the teacher to develop relevant and explicit learning goals for each student. It permits the teacher to support the students and give each equal opportunity to participate by structuring the activities in a way that all students can participate, not only the digital savvy ones. Voss (2018) further highlighted that generally students are motivated to try new things when they realise how their learning could contribute towards their future aspirations. According to Schmitt and Weinberger (2018), to reduce prejudices during technology-supported collaborative learning, it is beneficial from the teacher to consider how the workspace is shared between all students. Collaborative learning requires a shared access to digital resources. Schmitt and Weinberger (2018), suggested that the teacher must ask the questions; how is the working area to be shared? Does the working area enable sharing? Where will the students stay? Does every student get the opportunity to participate? Further Gay (2002) suggested three ways of converting cultural knowledge in the curriculum: (1) through the formal teaching plans, (2) through the symbolic curriculum (e.g. celebrations, symbols and rewards) and (3) through the societal curriculum (e.g. ideas shared in social and mass media). This could be achieved by providing students varied possibilities to show their understanding of content, “such as academic essays, letters, short stories, oral storytelling, dialogues, creating scripts for animations and photo collages” (Gay, 2013, p.65). When looking for learning opportunities, committed teachers always look for the positive, the constructive and the potentials instead of the problems of these students (Gay, 2013).

2.5.3.2 The facilitation of inclusive practices at the meso level.

At the meso level the teacher’s inclusive digital practices could encourage diverse students to make connections with their community and to benefit from these learning activities outside their classroom (Zielezinski & Darling-Hammond, 2018). Price-Dennis and collegeaues (2015) stated that the students’ work was made visible when they tweeted and contributed in the school blog. As a response, other members in the community posed questions and gave suggestions. When the students suggested solutions to common community problems they felt useful and increased their sense of belonging. Technology allowed the students the affordability to interact outside the classroom, where students could connect with diverse cultures both virtually and in real time.

Connections can also be made outside the country, maybe to the student's native country. That being the case, cultures relevant to the students can easily be accessed with the use of digital technologies, increasing engagement for the diverse students (Zielezinski & Darling-Hammond, 2018).

Moll, Amanti, Neff and Gonzalez (1992) found that diverse students felt included when the teacher familiarised oneself with the student's culture and considered the "funds of knowledge" existing within the students' families. This required from the teacher to invite parents to communicate and share how they educate their children and what were their expectations from the school. The teacher considered the parents' support to understanding the educational development of their children. The teacher applied the 'culture of power' to the students (Delpit, 1995), which included giving time to the students to adapt to the new culture without demeaning their home culture (Bourdieu, 1977). However, Delpit (1995) stated that even if they maintain their home habits, diverse students need to learn the new culture and social practices if they are to succeed at school.

2.5.3.3 The facilitation of inclusive practices at the micro level.

At the micro level, social media tended to have great impact in promoting change in the people's attitudes (Winter, 2015), including the parents' attitudes towards digital use for their children' s inclusion in the education system. Research indicated that two thirds of online Latino parents make use of social networks like Facebooks and Twitter. The parents depended on social media to make digital connections (Katz, 2014).

In the classroom the teachers' values and attitudes influence their dispositions to encourage inclusive digital practices in a multicultural environment. Johnson, McHugh, Eagle and Spires (2019) explored the teachers' roles to cultural differences during a project-based inquiry (PBI) on the curricular theme, the five senses. Two kindergarten teachers guided and facilitated the interactions with 45 students and invited their parents to share a cultural artefact that portrayed their family background, with their children in class. The aim of this study was to find ways to make children aware of other cultures through the use of digital technology. The students' parents were also involved in this project. The PBI Global teaching strategy consisted of five repeated stages: (1) the teacher asked an intriguing question, where there were various answers to the question, (2) the students found and analysed the information, (3) the students synthesized the information, (4) the students critically evaluated the information, (5) the students disseminated and acted upon the new information. Further the students were asked to share the family cultural artefact and associated it with one of the five senses. Eventually the students found similarities and differences between the original locations of the artefacts and their current migrating country (Johnson et al, 2019).

Through the interactions, the student became aware of their cultural differences and similarities. Students realised that although they came from the same social and economic backgrounds, their family roots were different. This implies that using digital technology helped students and the teacher create social awareness. This awareness enabled the students to feel integrated in their new country. Additionally, by sharing their family cultural backgrounds the students affirmed their roots, established who they were and accepted their differences (Johnson et al., 2019). When differences were addressed to accommodate to the individuals' needs inclusion was facilitated. Teachers were resourceful in providing students with new learning and equal opportunities, even though this meant feeling uncomfortable themselves. Additionally, the parents' engagement and support in their children's project positively reinforced the students' perceptions of their abilities.

On the same line Zhao (2019) suggested that to prepare students for the future, a new teaching and learning paradigm, when using digital resources, needs to be considered – a paradigm which begins with the student, where instead of a fixed curriculum and standardised tests, it recognises the student's strengths rather than deficiencies. In order for diverse students to be recognised and included in the classroom it "is not necessary to advocate the reproduction of the past or customs from far-off places" (Modood, 2013, p.39). Bhabha (1988) stated that a third space, a new boundary space of *negotiation and translation* call to be discovered by the teacher and the student. It is an opportunity for the teacher to engage with and connect with the students' co-presences, their past and new life experiences both at school and at home.

When facilitating inclusive practices with digital technology, the teacher also enhances the student's agency, when they choose between the available digital instructional material; when they decide whether they need or not to use technology, to accomplish the learning task (Zielezinski & Darling- Hammond, 2018). Students are considered to have agency "not just in relation to individual self-definition but in relation to the outsider perceptions, treatment and social expectations" (Modood, 2013, p.38), how students are treated at school and in society.

The teachers' inclusive practices could enhance the students' and their family's integration within the education system. The facilitation of quality digital practices takes place when the teacher practises higher order thinking skills with diverse students. For example, within the context of Latino children, these digital skills place these students in authoritative roles, as digital experts within their community. Parents or other family members depend on their children's digital skills to make connections, buy online, to find places and leisure activities. Further, Fuller, Lizárraga and Gray (2015) found that the information and language development that migrant students acquired from interacting online, tended to influence their brokering role within the family, therefore affecting their relationships and development both in and outside the school.

On the same line Katz (2014) specified the students' agency as depicted in the role of the children become that of a broker, as they enable their family to avail themselves of the required services, such as those related to health, finance and housing, thus strengthening the family connections with the outside world. Therefore, through the use of digital resources diverse students are given agency, when they share their knowledge and are supported by the school and their family.

The teachers' reflections on their encounters with diverse students and their parents are critical for the development of the students' learning and to establish connections with the family. In this study I consider the teacher's experiences on these issues as important to be heard. The participating teachers will be given the possibility to reflect, identify and share the student's political struggle, their struggle to participate during the lessons. Then the social reality of these students is critically confronted by considering new possibilities with the use of digital technology. During this investigation it is intended that teachers reflect on their beliefs and actions with regards to the diverse students' digital access and use.

2.6 The relevant learning theories

Though most pre and post-net theories of learning are in one way or another related to digital equity in the multicultural classroom, three theories of learning were identified as having greater relevance to the main constructs of this investigation:

(1) the teacher's dispositions

(2) the multicultural classroom and

(3) digital equity.

Thus, to explore the teachers' dispositions towards equitable digital practices in multicultural classrooms, this study is framed within three main learning theories including Vygotsky's (1978) social constructivist, Siemens' (2004) connectivist, and Papert's (1991) constructionist paradigms of learning.

Situated within the metaphor of the educational ecosystem (Niemi, 2021) that enables us to view the interactions taking place between diverse actors at the different systems' levels during the COVID-19 pandemic when the teachers facilitated equitable digital practices, this research mirrors Vygotsky's (1978) sociocultural constructivism theory. This theory is based on the understanding that learning is a process of 'constructing' knowledge based on one's experience. This theory states that learning starts from birth, through interactions. Students learn from the context, the linguistic context, the social situation and the environment. They co-learn with people in their nearest surrounding, within an ecosystem where learning is grounded in the student's here and now. The

students' interactions with the other generations like their parents, siblings, extended families, the community, teachers, leaders and others enable them to develop their full potential.

Additionally, since during the COVID-19 pandemic teaching and learning was being delivered online, knowledge was constructed between the use of technology and social interactions. Thus, to understand the teaching and learning experiences during these interactions when using digital means this study's theoretical framework also extends to Siemen's (2004) connectivist theory. Connectivisim emphasizes that through the Internet people learn and share information, where learning takes place not only within the individual but also across networks. Learning is considered as the process of creating connections between individual learners thus establishing learning networks, between and through digital systems and also different modalities of connections with subject matter.

The necessity to teach online during the COVID-19 pandemic predisposed teachers to change their practices towards more student-centred approaches. Constructionism (Harel & Papert, 1991) supports this approach to learning and encourages the students to learn by discovery, where they share their experiences to acquire more knowledge. Students learn when they participate in school activities where they encounter new and different areas of knowledge. In constructionism rather than give them instructions, the teacher guides the students in their learning by designing and creating, that is constructing understanding by constructing artefacts.

With these learning theories I explore the teachers' dispositions to facilitate equitable digital practices in multicultural classroom within the encountered opportunities and challenges:

1. to recognise differences in digital access
2. to use digital technology for teaching and learning, and
3. to facilitate inclusive practices

2.7 The research questions

The research questions to investigate Maltese teachers' dispositions to facilitate equitable digital practices in multicultural classrooms are the following:

1. Which are the opportunities that influence Maltese teachers' dispositions to facilitate digital equity and inclusion?
2. Which are the challenges that influence Maltese teachers' dispositions to facilitate digital equity and inclusion?
3. How are Maltese teachers' dispositions manifested when they recognise students' differences in digital access?
4. How are Maltese teachers' dispositions manifested when using digital technology in interacting with students?

5. How are Maltese teachers' dispositions manifested in such contexts, when they practise inclusive practices for the integration of diverse students and their parents?

In exploring the opportunities and challenges influencing the teachers' dispositions when recognising the students' differences in digital access, the teacher's beliefs and actions may be influenced by one's prejudices towards the other's differences. Some teachers may be influenced by the 'collective memory', reminiscent of the historical past and colonial influences. When using digital technology for teaching and learning the teachers' beliefs towards the British education system may affect the teachers' strategies towards considering using British digital resources thus emphasising Eurocentric epistemologies and knowledge. In facilitating inclusive practices, it is critical to explore the teachers' beliefs towards the students' differences, the teacher's awareness of their positionality, so as not to influence the students with their biases and possible racist beliefs.

Diversity within the Maltese national curriculum is promoted as a feature of society. When using digital technology for teaching and learning the teacher develops dispositions to adapt the curriculum and evaluation system to accommodate the students' various needs and abilities. Practising digital literacy with the students may enable the teacher to deliver relevant and inclusive teaching strategies.

Learning in Malta is considered a community activity where teachers are being prepared to work collaboratively, through collegial dialogue and support. Thus, the teachers' dispositions towards recognising the students' differences in digital access may influence one's social awareness and strategies towards inclusive practices. Through the use of digital technology teachers could develop dispositions to learn and live with their collegeaues, students and their parents develop common goals and a shared school culture. Through the exploration of the teachers' dispositions one could identify whether they have the autonomy to make changes according to societal needs, the challenges and opportunities influencing the teachers' dispositions towards the inclusion of all students.

To recognise and value the students' differences is in line with the teachers' code of ethics which suggests teachers to build a professional relationship with the students, where the teacher respects the uniqueness and diversity of the students. Digital technology accommodates to students' differences such as the language, religion and culture thus promoting the inclusion of all students.

In this chapter I discussed the conceptual framework and the operationalised concepts in this investigation. The metaphor of the educational ecosystem enables us to view the teachers' dispositions, their beliefs and actions to facilitate digital equity and inclusion. In the following chapter, the methodology used to capture the teachers' experiences will be discussed together with the method used to analyse the teachers' beliefs and actions towards equitable digital practices.

Chapter 3. The Methodology

In the previous chapters I introduced the Maltese education system and its subsystems influencing the teachers' dispositions towards facilitating digital equity and inclusion in multicultural classrooms. Then I presented the conceptual framework of this study, framed within the educational ecosystem (Niemi, 2021a). I explained that in order to investigate the teachers' dispositions it was required from me to find the conditions (Nelsen, 2015) which influence the teachers' dispositions and then analyse the teachers' beliefs and strategies, their dispositions (Villegas, 2007) within this context. Consequently, in this chapter I discuss my position as a researcher, the research design, the ethical considerations, the procedures, the participants and the methods.

3.1 The methodology

In order to explore Maltese teachers' dispositions to equitably use digital resources in multicultural classrooms, I consider my ontological beliefs, who I am, my life experiences, the value I give to education and the assumptions I make in order to reflect on whether my idea for investigation is plausible or not. These will all influence my thinking orientation towards the research problem. I am assuming that in multicultural classrooms the teachers' and the students' interactions could be made more just and the teachers' practices could be modified to achieve more equitable interactions, irrespective of the student's looks, language or social reality.

My ontological assumptions are based on the metaphor of the education ecosystem (Niemi, 2021a) where for a well-functioning system, the interconnectedness among the diverse actors is required, where through participation all the members are integrated irrespective of one's differences. This education system challenges the existing structures of exclusion and inequalities and contributes towards emancipatory pursuits, for transformations. Teachers are asked to reflect, to develop what Freire called a critical consciousness "a reflective awareness of the differences in power and privilege and the inequities that are embedded in social relationships", by "means of praxis: reflection and action upon the world in order to transform it" (Freire, 1972, p.51). The teachers' voice is critical in this investigation in sharing their experiences when using digital technology with diverse students and their parents.

Freire highlighted that the thinking subject, that is the teacher does not exist in isolation but is conscious about what is happening in society and in the world. On the same line, within the educational ecosystem, the teachers' work is always influenced by what is happening in society, where different actors influence each other and are required to collaborate as they actively interact with different systems (Niemi, 2021a).

The metaphor of the educational ecosystem enables us to 'view' the teachers' beliefs and actions when recognising the differences in digital access, during teaching and learning when using digital technology and when implementing inclusive practices for the integration of diverse students. With this regard my ontological assumptions draw on critical pedagogy, where operations of power such as systemic influences, power dynamics, practices, policies, societal norms and the teachers' beliefs, enables or hinders the teachers from facilitating equitable digital practices and inclusion. These are investigated through the teacher's critical reflection. By sharing their experiences teachers discover their underlying assumptions, biases, values so as to commit oneself to change for social justice, for just teaching and learning with digital technologies.

The teachers' dispositions are investigated as influenced by the three system's levels; the macro, the meso and the micro levels. At the macro level such systemic influences might be the quality of the available digital resources at school e.g. the slow or lack of Internet connection. Additionally, the teachers' dispositions could be influenced by the country's history, the people' *collective memory*, the curriculum, the evaluation system and the national policies. At the meso level the teachers' dispositions could be influenced by the school culture and the conditions that enable the teacher to work professionally and develop one's leadership qualities. At the micro level the teachers' dispositions could be influenced by one's personality, family, values, traditions and expertise, together with the teachers' racist or deficient believes towards the students (Niemi, 2021a).

International research within the area of digital technology and education is generally more oriented towards the positivist paradigm, where an objective stance is taken and a deductive approach to the theory is applied (EC, 2019; OECD, 2015). Crotty (1998) explains that "posit" is part of "positivism", meaning positioning an idea as fact. For a positivist the world is only seen from the factual side, where the presented reality is not affected by the researcher's interpretations. However, this approach is very limiting as it ignores the underlying factors such as the social, cultural and historical influences, together with a consideration of what is causing these facts and therefore ill-suited for this study. On the other hand, the interpretative approach tries to understand what is happening in the differences in power, the social structures and the interactions within the ecosystem.

This perspective in my investigation will shed light on human experiences, on the teachers, students and parents' experiences when using digital technology. It is situated within the social sciences, the socio-constructivist learning theory (Vygotsky, 1978), where new understandings and knowledge are subjective experiences, where participants personally construct knowledge through social interactions. Consequently, it is critical to listen to the teachers' voice and their experiences to

find out about their beliefs and actions during the encountered challenges and opportunities to use digital technology during the COVID-19 pandemic.

Following Niemi and Freire, the collective social focus of the study, in developing a critical consciousness towards inclusion within an educational ecosystem, influence the new knowledge on teachers' dispositions towards equity and inclusion. Consequently, considering Niemi and Freire ontological positions the epistemological approach to gain insight on the teachers' beliefs and strategies towards digital equity and inclusion is an Interpretivist one (Guba & Lincoln, 1989). I intend to look deeper, to 'get into the head of the subjects being studied' and try to understand the participants' point of view and the meanings they make from their reflections. Within this paradigm there is no one truth, but various truths and various ways of knowing, which depend on the individual's construction of meaning (Kivunja & Kuyini, 2017).

Through my interpretations of the participants' shared experiences, I intend to explore the teachers' dispositions, their nuanced beliefs and actions on the use of digital technology with diverse students. I am trying to understand the constructions of the teachers' subjective experiences which are influenced by their personal values, assumptions, stereotypes and prejudices in making connections and engaging with the students. These constructions are further negotiated during the interactions between the teacher and the researcher. Narrative scenarios and online semi-structured interviews are considered the most fitting methods to illustrate and analyse the teachers' shared realities during the COVID-19 pandemic.

3.2 My position as a researcher

As a researcher I am aware that who I am influences the interpretation of the data. This research is guided by my strong belief that all children should achieve a just education, irrespective of one's individual differences, socio-economic status, looks, language and religion. Therefore, I believe that in a multicultural classroom, the teacher's and the students' interactions could be made more just, and technology could be the tool to enable equitable practices.

My experience as a teacher and a migrant teacher compelled me to further explore my learning experiences in the new country and to share and discuss with other parents, teachers, headteachers and friends my research idea, about my aspirations of using digital technologies for inclusion. As a migrant mother I was encouraged to take this research challenge, however, I did not receive the same support when I shared my research proposal with various universities. Understanding only came after I came across the statement, that "people tend to identify with situations that help them to a greater extent understand themselves" (Freire, 1972, p.23). I realised that maybe my migrant friends and educators could see the problem from its practical perspective

and could identify with the situation. They could see that technology could help them make better connections and encourage further participation.

To investigate the teachers' dispositions towards digital equity and inclusion it was required from me to explore the current teachers' digital practices. Initially I believed that the teachers' dispositions to use digital technology were only influenced by the classroom interactions. Several international organisations suggest the required teachers' competencies to use digital technologies in the classroom (EC, 2019; OECD, 2015; UNESCO, 2011). Therefore, I believed that teachers need a particular set of competencies (the knowledge, skills and attitudes) to be able to facilitate more just digital practices in class. When I was formulating the research question, the question was directed towards the attainment of these competencies. Therefore, I was looking at the way teachers' use of digital resources, their readiness to use technology with diverse students. However, the competences suggested by international organisations were not situated within a multicultural space, it was a more homogeneous space, where the students' differences were not recognised and valued. Therefore, I realised that the teachers' competencies were not the point of departure in my study but that of arrival. From this study after identifying the teachers' dispositions new competences could be recommended.

During my doctoral journey I realised that within the educational ecosystem, teachers' competences were not the sole factors which influenced their dispositions, but also other conditions within the system, such as the opportunities and challenges encountered by the teachers when using digital technology. The metaphor of the ecosystem provides a lens to analyse the conditions which influenced these interactions taking place when using digital resources and then to analyse the teachers' dispositions within these conditions.

It was required from me to explore the teachers' actions within this context - a context which influenced the teacher's pedagogical and epistemological beliefs about how diverse students learn. I realised that the research was not about ticking the teachers' qualities, a positivist study but an in-depth analysis was required to investigate the teachers' beliefs towards actualising these actions, to explore their dispositions. It was required from me to adopt an interpretivist approach and a qualitative methodology where teachers' dispositions were identified. My choice of qualitative methods allowed the teachers to personally reflect and share their experiences, to be heard through sharing their experiences in the narrative scenarios and the individual interviews.

The underlying concept of investigating the teacher's dispositions to equitably use digital resources in multicultural classrooms depended on the construction of various realities pertaining to the teachers, the students and the parents when using digital resources. It is through the teachers' shared experiences during the narrative scenarios and individual interviews (the data collection

instruments discussed in section 3.9) with the teachers, parents and students that these conditions could be identified.

During the data collection it was required from me to reflect on the teachers', students and parents shared experiences. My experience as a teacher and a mother facilitating the learning experiences of my immigrant children positions me as an 'insider' in this research. As Shaw (1996) stated being part of the group under study means 'simultaneously being an onlooker in the stalls and a member of the cast' (p. 10). Exploring a familial topic has its advantages, including the ease of access to the researched situations, having acquired knowledge through own experience and have more insight on the participants' reaction (Padgett, 2008; Karen & Chaitin, 2006). However, my role in this study was also that of an 'outsider' since I came from another institution, that is, I do not work at school but I come from university. It could be looked upon as a privilege for some teachers, parents or the students to have someone ask them questions about their experiences, but I might also have been considered an outsider since I did not form part of their school community. Nevertheless, I also felt an insider researcher, since I obtained my education from Maltese public schools and through my ten years of teaching experience, I had gained considerable knowledge about Maltese schools - knowledge which included, the organisation of the day, expected behaviours from the teachers and the students and expectations from the parents.

Aware of these expectations and conditions, as both an outside and inside researcher, helped me in conducting these exchanges. During the interviews which were conducted the COVID-19 pandemic, several teachers stated that they had never reflected on the interview questions. They also felt that they were meaningful for their life experiences. Teachers felt that it was an opportunity to be able to share the new digital experiences at a time when physical interactions were limited. I felt a sense of openness and understanding among all those who participated, even though we were far away from each other.

3.3 The research strategy

My research strategy involves obtaining data with qualitative methods, where data is expressed in words which captures the teachers', the students' and the parents' experiences (Bryman, 2012). The data collected in qualitative research, aims to achieve a deeper understanding of the participants' experiences rather than gaining the views of a large number of participants. It is concerned more with words rather than numbers.

The relevance of using qualitative methods lies in the fact that within a socio constructivist perspective, new ways of doing things are socially constructed through interactions between the teacher, the student and digital resources. In exploring the teacher's dispositions during these interactions, I intend to explore the conditions that may encourage or hinder the development of

equitable digital practices, the teachers' contribution towards achieving digital equity. Through the lens of the educational ecosystem, I intend to investigate these conditions by giving the participating teachers the opportunity to reflect, ask questions and discuss the posed questions during the narrative scenarios and individual interviews.

Through sharing of experiences, the teachers are given the possibilities to voice their concerns and frustrations. These experiences may or may not be similar to the other teachers' shared experiences. Qualitative methodology offers this opportunity to ask deeper questions, to discover new experiences and give voice to the teachers. During the interviews, teachers are guided to reflect on their beliefs and actions, so that the conditions, that influence the teachers' beliefs and actions may surface and we become aware of the needed change.

To analyse the equitable digital practices in multicultural space, my code choice and operational definition were derived from the literature review. As a researcher I moved back and forth between the two processes, the data collection and data analysis process, adopting an iterative process, till saturation was achieved in developing an understanding of the phenomenon under study. I adopted the three levels of the educational ecosystem - the macro, meso and micro levels, as a guide to analyse these interactions. These interactions were also influenced by the COVID-19 pandemic that created tensions in Maltese teachers when trying to connect and integrate all students in the online educational experience. I tried to keep a balance between these tensions by presenting both sides, the positive and the negative experiences, the opportunities and the challenges.

To analyse the teachers' shared experiences about their digital practices, I adopted a case study strategy with multiple qualitative data collection methods. Hancock, Dawson and Algozzine (2011) stated that in a case study one analyses a system or a group of people within a particular space and time, within its natural context. In this case study I achieved a detailed understanding of the teachers' dispositions to equitably use digital resources in multicultural classrooms through a cross-sectional data collection during the COVID-19 pandemic. As a consequence, a highly descriptive analysis is required and information is achieved from multiple sources, including the teachers' responses to narrative scenarios and online individual interviews with teachers, parents and students during the scholastic year 2020/2021 as illustrated in Table 6.

Table 6

The Data Collection Methods with respect to each Participant

Participants	Data Collection Method	
	Narrative Scenarios	Semi-structured Individual Interviews
Teachers	X	X
Students		X
Parents		X

3.4 Ethical considerations

3.4.1 Informed consent

As soon as my proposal was accepted, I started working on the ethical vetting process. I became familiar with the guiding principles and the standards of good research practice at University of Malta, using the "Research Code of Practice" (http://www.um.edu.mt/urec). Then guided by my supervisor I filled the online Research Ethics Form where I also had to include several documents required for my research. The online process to submit the Research Ethics Form included four parts: the applicant and project details, the self-assessment, the detailed assessment and then submission.

The first part included general questions comprising the thesis title, the researcher's name and the supervisors' names. The second part, the self-assessment, included questions about whether there were any risks or harm to humans, animals or the environment. The supporting documents were also included in this section. These documents consisted of the information letters, the consent forms, the interview guide and the questions related to the areas being analysed in the questionnaire. In the third part, a more detailed assessment of the research project was required which was followed by a submission that was endorsed by my supervisor.

Following the evaluation of my submitted application, the Faculty Research Ethics Committee (FREC) requested amendments, and I made the necessary changes. This process was concluded when FREC found no further ethical or data protection issues in my proposed research. My application was "conditionally approved" till I obtained the required institutional permissions to carry research in state schools, from the Directorate for Curriculum, Research, Innovation and Lifelong Learning and the participating schools. When the permissions were obtained and submitted to FREC, my application was approved, and I could begin my data collection.

Ethical considerations are integral to research, particularly when investigating sensitive topics such as teachers dispositions and practices. As outlined by Bryman (2016), researchers must

prioritise the principles of informed consent, confidentiality, and the right to withdraw. Participants in this study were fully briefed on the research aims, methods and potential implications through detailed consent forms. To maintain anonymity, pseudonyms were used, and all data were securely stored in compliance with the General Protection Regulation (GDPR) (European Union, 2016). Ethical approval was obtained from the relevant institutional review board, ensuring that the study adhered to ethical standards. Special care was taken to minimise potential discomfort or bias, as participants shared reflections on their professional practices, a process informed by Kvale and Brinkmann's (2009) emphasis on ethical sensitivity in qualitative interviewing.

When collecting the data, I had the moral obligation to do what was of benefit to all participants involved (Scheffler, 1982). It was required from me, as a researcher to be fair and make sure that all participants knew their rights and that these rights were actualised throughout the research process. All participants were informed about the research through an information letter. In this letter the main phases of the research were explained together with the intended benefit of this research. All participants were asked to voluntarily take part in this research and for their consent in the case of the students their assent. I emphasized that participation was voluntary by reading the consent letter before each interview. Participants could withdraw from research anytime without suffering any negative consequences. I also made it clear that I respect their anonymity. The participants' identities were not to be revealed in my writing and codes were used instead. The information, the participants were required to share during the interview sessions was set in the prepared questions of the designed instrument, the Interview Guide. Having this instrument determined what information participants were required to share and what to keep to themselves.

Participants were asked for permission for audio recordings and their consent obtained. The audio recordings and notes taken during the research were stored securely. The recordings were digitally altered for storage so that the voices are not recognisable. The identities of participants and that of the schools were kept confidential and anonymised through the use of codes. Transcripts were used for the thematic analysis to identify key findings which would be communicated both to the participants and the research community.

3.5 Procedures and measures

To conduct this investigation participants were selected from public primary schools in Malta. The following sections describe the procedures that had to be followed to gain access in the identified public Maltese primary schools.

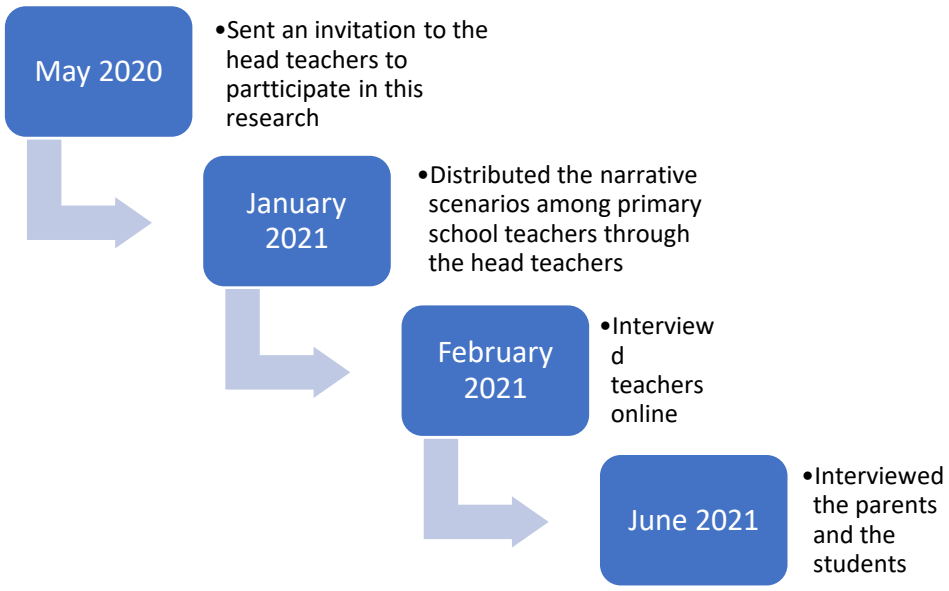
3.5.1 Gaining access: Selecting schools and participants.

Gaining access to participants and establishing rapport is critical for successful data collection in qualitative research. According to Creswell and Poth (2018), researchers must build trust and mutual understanding with participants to facilitate open and honest dialogue. In this study, access to teachers was negotiated through school administrators, who were briefed on the research objectives and processes. The researcher employed a transparent and respectful approach, emphasising the voluntary nature of participation and the confidentiality of the data. Building rapport involved creating a comfortable and non-judgmental environment during interviews, as recommended by Seidman (2013). Establishing a shared understanding of the research's value to educate helped participants feel invested in the study, enhancing the depth and authenticity of their responses. My familiarity with the Maltese educational context further supported rapport-building by demonstrating cultural competence and understanding of the participants' professional realities. The decision to select primary classes for this research was because younger children might be more limited in their language and digital skills, so they might rely more on the teacher to find solutions to their learning with technology. Consequently, there might be more interactions between the teacher and the students when using digital resources.

Initially I was considering inviting all Maltese primary schools to participate in this research. However, after receiving feedback and consultation from the research ethics committee, I decided to narrow my sample, to a specific group of students. Classrooms with students coming from diverse cultural backgrounds were identified for this study. Area schools in particular localities in Malta, which are characterised by a higher population of foreigners as per NSO report (2021), were identified. Choosing these localities is critical for this research since the presence of migrant students in these classes might compel the teachers to find new ways to connect with and engage these students and their family through digital technologies. This was especially significant during the COVID-19 pandemic when teaching was being carried out online.

Figure 3

Timeline of Data Collection



The head teachers of the identified were informed about the project through an Information Letter sent in May 2020 as illustrated in Figure 3. Acting as an intermediary they were invited to inform the class teachers to voluntarily participate in this research project. Those teachers who were interested were asked to personally contact the researcher through the email address provided. Students and their parents or guardians were also invited to voluntarily participate. This was done through their class teacher who was also participating in this research. All participants supporting this research were provided with an information letter to clarify the research aims and rights and asked for an oral and written consent. The information letters and consent forms can be found in Appendix I. Data was collected from narrative scenarios and individual online semi-structured interviews. The narrative scenarios and the interview guides were developed with my supervisors and submitted to the Ethics committee for evaluation. The day and time of the interview was decided before hand, when it was most convenient for the participants. During the interviews, participants were encouraged to speak freely about their experiences and give concrete examples.

After consulting my supervisor, the narrative scenarios were distributed to public primary school teachers in Year 4, 5 and 6 through the head teachers. This was done during the first week of January 2021, just before the teachers and students were returning to school after the Christmas holidays. The reason why I chose years 4, 5 and 6 was because in Year 4 students are given a tablet and they continue to use it till they are in Year 6. Having a personal digital device, students might be more apt to use it. In January 2021 I sent again the questionnaires to Maltese public primary schools,

two more times giving the latest submission date on the 31st of January. However, the day after I sent the narrative scenarios, teachers went on a general strike related to the pandemic.

The disruptions may have hindered the teachers to respond to the narrative scenarios. This research was carried out during the COVID-19 pandemic when teachers were experiencing various challenging situations. Besides having concerns about the virus infection, their workload also increased. They had to prepare both live lessons for the students attending the school and online for those staying at home. Additionally, this research is targeting a minor group of students who may prove to be rather challenging to teachers.

Within this context even though I kept reminding the headteachers to encourage their teachers to participate I was not expecting a high response from the teachers. 11 teachers participated in the narrative scenario were 11, nine female and two males. The online teachers' interviews were carried out in February 2021 and those of the parents and their children in June 2021. The interviews with the teachers took approximately 40 minutes and those with the students and the parents took about 20 minutes.

3.6 The participants

The participants included primary teachers, migrant parents and their children. 11 teachers, nine females and two males voluntarily participated in the narrative scenarios. 21 teachers, 18 females and 3 males participated in the individual semi-structured online interview. Additionally, 5 parents with their 5 children participated in the online individual interview.

3.6.1 Sample size

To justify the sample size in a qualitative research Brinkmann (2013) stated that data should reach the level of saturation. This occurs when increasing the number of participants does not influence or add more viewpoints to the results. This point in data collection is called data saturation, where nothing new is found and when adding more information will not change the results. The number of participants is determined when the level of saturation is reached. To the question on how many interviews one should conduct Kvale and Brinkmann (2008) stated "Interview as many subjects as necessary to find out what you need to know" (p.113).

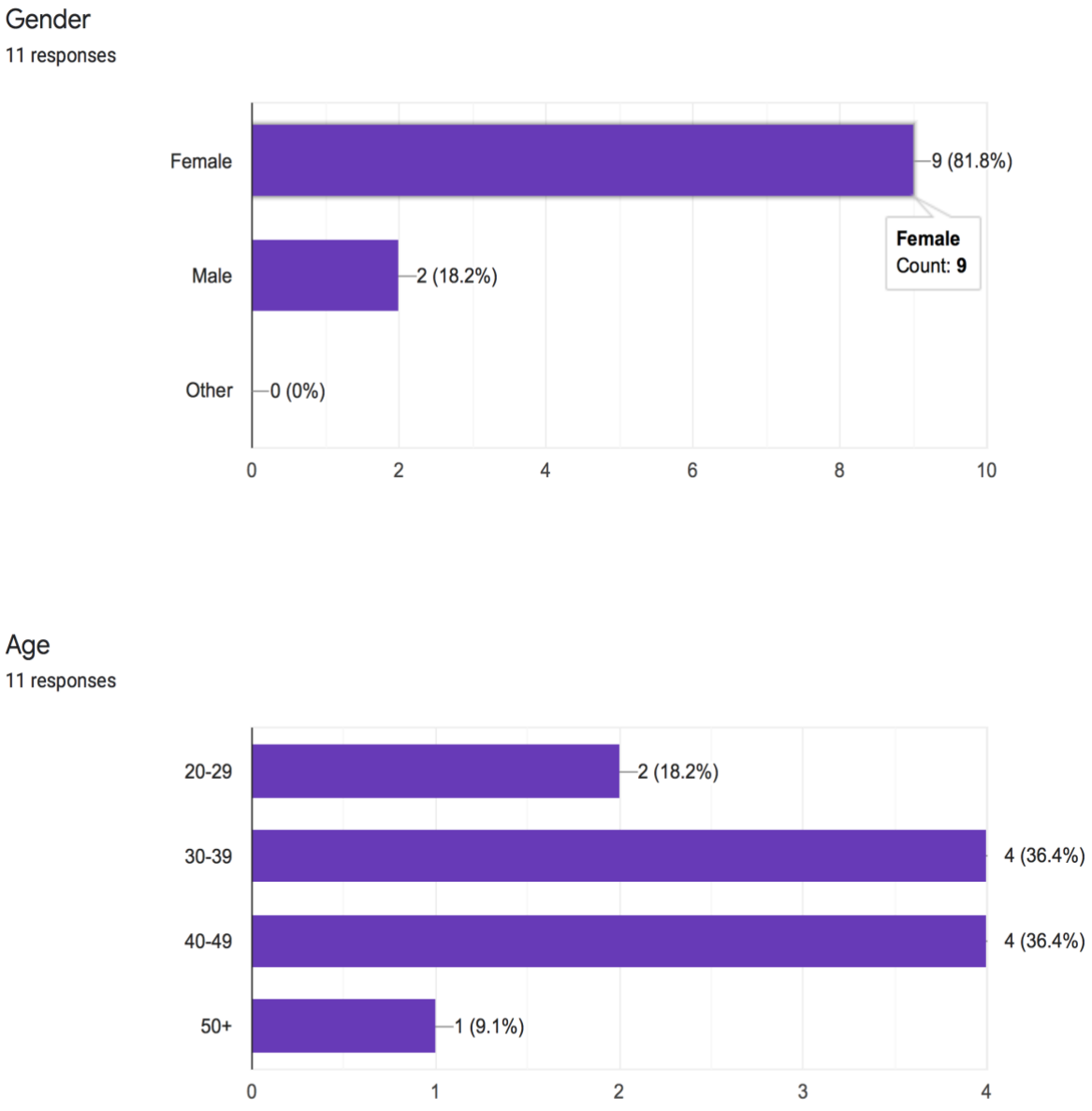
Initially invitations for teachers to participate during the individual online interviews were sent to Year 4, 5 and 6. However during the COVID-19 pandemic teachers were experiencing a different reality than normal times which might have influenced their involvement in my study. Due to the limited number of teachers participating and to reach data saturation I had to consider other participants and invited the teachers from the younger age groups. Consequently, permission was obtained from the Ethics Committee to widen my invitation to all the teachers in the primary

schools. This change provided a positive contribution to my study as it maximised the variation in the sample, enabling me to investigate a wider spectrum of teachers' realities, across all the primary school years.

The number of participating teachers was 21, teaching classes from kindergarten to Year 6, together with 5 parents and their child. The following (Figure 4 and Tables 7 and 8 summarise the demographics of the participants who took part in this study.

Figure 4

Data on the Primary Teachers Participating during the Narrative Scenarios



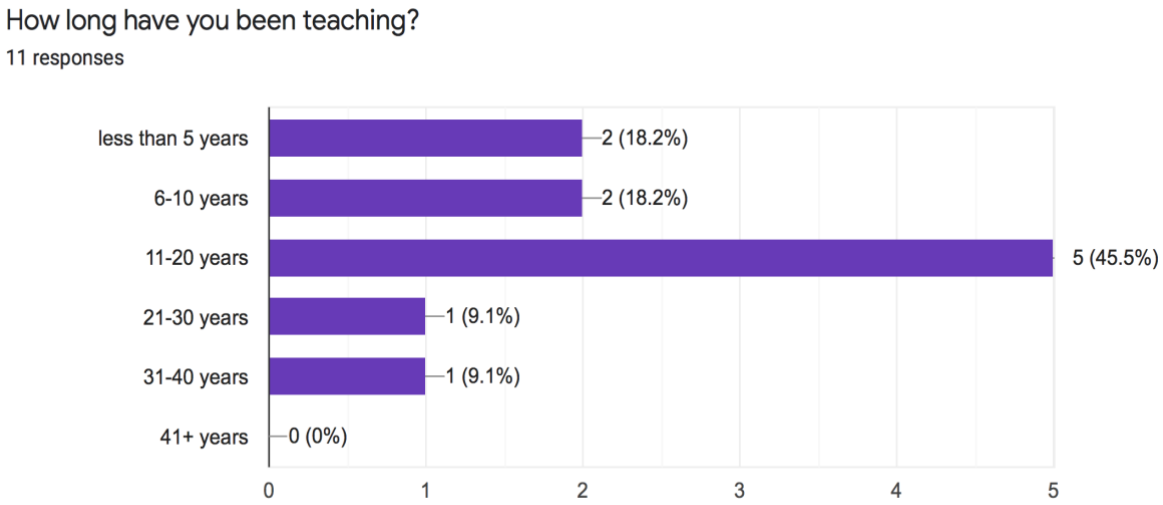


Table 7

Data on the Teachers Participating in the Interviews

Teacher	Teaching experience	Class year	Gender
T1	6	5	M
T2	7	5	F
T3	6	6	F
T4	7	4	F
T5	8	5	M
T6	?	5	M
T7	?	4	F
T8	26	6	F
T9	20	4	F
T10	6	4	F
T11	24	1	F
T12	2	2	F
T13	2	6	F
T14	2	4	F
T15	30	Kinder	F
T16	8	1	F
T17	?	6	F
T18	5	4	F
T19	22	6	F
T20	5	4	F
T21	5	5	F

Table 8

Data on the Students and their Parents Participating in the Interviews

Parent	Student	Class year
P1	S1	4
P2	S2	5
P3	S3	4
P4	S4	5
P5	S5	6

In the following section the qualitative instruments, the narrative scenario and the semi-structured interviews' guides are described.

3.7 Method of research: the mixed-methods approach and the instruments used

3.7.1 Narrative Scenarios

As illustrated in the literature, the teachers' dispositions can be explored through the act of reflection (Freire, 1972) and narrative scenarios can help teachers reflect on a particular event (Daiute, 2018). The act of reflection is believed to be characteristic of teacher's practices and best outcomes of these reflections are obtained when teachers share these reflections with others. Since dispositions are the alignment between teachers' intentions and actions (Diez, 2007; Villegas, 2007), the use of narrative scenarios is the right tool to frame the teachers' meaning and decision-making process. In this research the use of narrative scenarios helped teachers to reflect on a given event that they might have encountered during their daily teaching and learning experiences when using digital resources.

The rationale for using narrative scenarios in this research was to collect information on Maltese teachers' experiences, recollections, thoughts and understandings. When teachers reflected on the narrative scenarios provided, they are negotiating between their own lived experiences and their understandings. It was a dynamic process which was influenced by the teachers' beliefs, the actual context and how the teacher related in the situation. Through reflections teacher expressed the interactive experiences where meaning was expressed in utterances, in words (Daiute, 2018).

Thus, teachers' pedagogical dispositions were reflected when they shared their views during the interviews and in their responses to how they imagined themselves to act in a given narrative scenarios. Edwards (2017) highlighted four dimensional processes to reflection: reflection-before-action, the reflection-in-action, the reflection-on-action and the reflection-beyond-action as illustrated in Table 9.

Table 9

The Teachers' Reflection Process during the Study (Edwards, 2017)

reflection-before-action	reflection-in-action	reflection-on-action	reflection-beyond-action
Interview	Interview narrative scenarios	Interview narrative scenarios	narrative scenarios

In reflecting before action, the teacher is reflecting before one's actions which are influenced by one's beliefs (Smylie, 1994). During the first few interview questions teachers reflected on the use of digital technology in multicultural classrooms. During the interactions the teacher filtered the situation and "begin to make sense of concerns, problems and learning needs before going into practice situations" (Edwards, 2017, p.4).

Reflection-in-action (Edwards, 2017) enables connections between theory and practice, between beliefs and actions. During the narrative scenarios and the interview, teachers reflected-in-action, when developed and shared their unique experiences when using digital technology during teaching and learning. During the interview questions teachers reflected on the connections between theory and practice. Such theory-practise relate questions included "how do you believe the students learn best?"

Further Edwards (2017) stated that reflection-on-action is carried through assessments and in this research the assessment was exercised through the narrative scenarios and the interview questions. When reflecting on their actions, teachers were given the possibility to express their feelings and encourage further thinking and creativity about possibilities for change. To reflect on their actions, teachers were asked "how do you see your role as a teacher in mediating the values of society?" or "how do you try to include every student? These questions beside actions elicit feelings, thus enabling me as a researcher to identify both the teachers' beliefs and actions, their dispositions.

In reflecting-beyond-action Edwards (2017) suggested that a story could be used to make the reflective experience more meaningful. The difference between the data collection from the narrative scenario and the interviews was that the teachers were given the opportunity to reflect differently. Through reflecting differently teachers could develop and deepen their pedagogical practices. In this research the use of narrative scenarios contributed towards providing teachers with a story to reflect in, on and beyond action. Further during the interviews, teachers were given the opportunity to reflect-before-action, in-action, and on-action. Additionally, when illustrating the narrative scenarios during the interviews, teachers were presented with a specific situation for reflection-beyond-action.

Another relation between the narrative scenarios and the interview was that both had their core questions investigating the teachers' dispositional constructs, that is the teachers' beliefs and

actions. The teachers' responses to the questions of the narrative scenarios and their reflections during the interview provided data on the teacher's dispositions towards digital equity in multicultural contexts. The scenarios depicted the interactions between the teacher, the diverse student's struggles to use digital resources during the maths activity. The choice of a Maths lesson as a subject was due to the skills learnt during this subject, which are familiar with both local and foreign students. The teachers' responses to the narrative scenarios portrayed the teachers' 'inclination towards particular behaviours' (Schussler & Knarr, 2013, p. 78). More specifically they adapted the teaching methods during a Maths lesson to facilitate teaching and learning in multicultural classroom when using digital technology.

As illustrated in Table 10, the narrative scenarios were related to four typical curriculum interactions including: subject matter, the teachers, the learners, and the milieu (Männikkö & Husu, 2020; Schwab, 1973). These will be accompanied with three questions related to the dispositional constructs, the teachers' beliefs and actions (Villegas, 2007) and the fourth question related to the use of digital resources.

The narrative scenarios were piloted in December 2020. The teacher who volunteered to pilot the narrative scenarios did so during her 15 minutes school break. The volunteering teacher's responses indicated that the presented statements in the narrative scenarios were understood and relevant to the current Maltese teachers' experiences and also provided recommendations about how the narrative scenarios could be improved. The following were her comments on the second scenario depicting a situation where a teacher gives a written instruction in the local language on a Maths task, where in class there is a migrant student who cannot speak this language and neither do his parents at home.

> "Migrant students in Malta receive a specialised programme in a migrant class. So, this scenario is less likely to happen. In migrant classes they learn basic English and Maltese. Then they are integrated into mainstream."

In Malta, newly arrived students, who could neither speak Maltese nor English spend a year in an induction programme, known as the hub. They are expected to acquire both linguistic and sociocultural competences. By the end of this induction year the students are assessed on their achievement and a decision is taken whether they can join the mainstream education or not (https://migrantlearnersunit.gov.mt).

Table 10

The Narrative Scenarios

Scenario 1: Doing an individual Maths assignment (Subject matter) The teacher asks the students to complete some maths work. Most of the students start writing however a migrant student remains passive. • How would you feel in such situation? (beliefs) • How would you respond to such situation? (actions-general) • What teaching and learning strategies would you use to handle this situation? (actions-specific) • Do you use any digital resources? Which ones? How do you use them? If not, why?
Scenario 2: Giving instructions (Teachers) The teacher gives the students a set of maths problems to work at home. They are written in the local language. In class there is a migrant student who finds this language difficult to understand and so do his parents at home. • How would you feel in such situation? (beliefs) • How would you respond to such situation? (actions-general) • What teaching and learning methods would you use to handle this situation? (actions-specific) • Do you use any digital resources? Which ones? How do you use them? If not, why?
Scenario 3: Disruption in the classroom (Learners) The teacher gives the students a maths problem to work in class, however instead of working on the task, a migrant student starts teasing the other students. • How would you feel in such situation? (beliefs) • How would you respond to such situation? (actions-general) • What classroom management techniques would you use to handle this situation? (actions-specific) • Do you use any digital resources? Which ones? How do you use them? If not, why?
Scenario 4: Working online (Milieu) During the current COVID-19 pandemic a teacher is delivering a lesson online, however a migrant student is not connected- • How would you feel in such situation? (beliefs) • How would you respond to such situation? (actions-general) • What teaching and learning methods would you use to handle this situation? (actions-specific) • Do you use other digital resources? Which ones? How do you use them? If not, why?

However, when I was piloting the narrative scenarios, I had a feeling about the students' language acquisition that things might be different than explained by the volunteering teacher. I still felt the need to include this scenario, I wanted to find out more from the teachers about this likely scenario. This scenario became the main challenge of my investigation creating in me the need to explore this situation in collaboration with teachers. From my experience living in a foreign country, I knew that it might take longer for some student to learn the local language and to use that language to communicate and solve problems. I felt that with basic language attainment migrant students might still encounter difficulties to understand and solve Maths problems. I wanted to probe the teachers further and ask them directly about their first-hand experience into this matter.

In fact, during the interviews several teachers shared their experiences stating that some newly arrived students find it difficult to express themselves, to communicate in the local languages and some even highlighted that some students skip attending the Language Hub altogether.

After reading the questions related to the narrative scenarios, teachers reported their views, their envisioned actions in response to the main questions. It was critical that the teachers think about these scenarios as if happening in their own classrooms, a situation which was happening to them. When the teachers answered the questions to each narrative scenario they will think about their actual classroom students, how they felt in such situation and how they responded to the given situation and their teaching approaches.

To deepen the investigation, the data obtained from the narrative scenarios were complemented with the teachers' individual interviews, where through probing questions I asked them to reflect more about their thinking. During the interviews I encouraged the teachers to develop their thinking on the narrative scenarios, to reach the essential depth.

Combining the narrative scenarios and the interviews enhances spontaneity, provides a more faithful representation of the teachers' beliefs and frame-of-mind, also eliminating inaccurate data arising from the teachers' negligence in answering the narrative scenario questions, e.g. hastily responding to the narrative scenarios because of limited time.

3.7.2 Semi-structured interviews: Teachers

When conducting a qualitative semi-structured interview, the researcher is more interested on the participants' experiences and the research methods used are directed towards deeper understanding (Bryman, 2012). 21 class teachers participated in the individual semi-structured online interview.

An Interview Guide with the questions was designed to guide me when asking the questions (Table 6). In order to design the Interview Guide, I considered the research question and what I intended to achieve from these interviews. To investigate Maltese teachers' dispositions towards digital equity, first I considered the main concepts and then the subsequent sub concepts in this area of research (Tolley, Ulin, Mack, Robinson & Succop, 2016). From these concepts, the questions for the interview guide were developed as illustrated in Table 11.

Although in qualitative research an interview can be considered as a dialogue between two people, Rubin and Rubin (1995) noted that the development of the conversation in an interview almost always follows a pattern, which includes three types of interrogation. These include the researcher asking the main question, then the following up question and finally probing. Tolley and colleagues (2016) explained that when asking the main question, the researcher is introducing the topic. It elicits a spontaneous reply from the participant but at the same time it is explicit enough to keep the conversation focused. The questions that follows are more explicit and ask for more detail. After by probing, the researcher seeks clarification and asks the participants for the actual accounts and experiences. When designing the interview guide, I tried to arrange the questions in a sequence which encouraged the discussion to flow naturally.

After considering the underpinning concepts the main questions were designed, followed up by another question and then by a probe. The interview guide helped me to keep focus on the main questions to be asked. The order changed according to the teachers' responses.

An introduction and concluding statement were also added in the interview guide (Tolley et al., 2016). In the introduction, the research project and the basic rules, including asking for consent were explained. The online interviews commenced with an audio-recorded declaration by participants that they have read and understood the information documents and that they consent to participate in the study. Continual consent was ensured during the interview by reminding the participants of consent at different points in the interview.

Towards the end of the interview participants were acknowledged and assured of the confidentiality of their insights and shared experience. They were asked if they had any further questions. The narrative scenarios and the interview guide were piloted by volunteering teachers, to assess the kind of responses the questions will elicit and to ascertain that the kind of information shared during the data collection is the kind of information that answers the research question.

Table 11

The Teacher's Interview Guide

Opening statement: Explanation of the project and the ground rules of the interviews. Read the consent declaration.			
Digital Equitable Practices	**Main Question**	**Follow-up Question**	**Probes**
Digital Access	Do you use digital technology? If not why?	What kind of technology do you use? How do you use it?	Is it easy or difficult?
	How do you feel about new approaches with digital technologies? / What would make you try new approaches with technology?	If +ve reply: When was the last time you tried? If -ve reply: Do you plan to try to do something new/different with technology with your class?	If +ve reply: What did you do? If -ve reply: What will you do?
	How do you see this situation of having diverse students in class/school?	What do you do?	Can you share an experience?
Digital Use	Why do you use digital technology?	What is the biggest advantage of using technology?	Can you share an example? (such as IWB/Tablet/Internet)
	How do you believe students learn best?	Why do you think so?	How does digital technology help in the teaching-learning process?
	Do you use it to engage different groups of students?	How?	Can you share an example? (such as IWB/Tablet/Internet)
	Do you organise special activities?	Are special activities needed? or should all students be addressed in the same way?	Do you have special challenges with culturally mixed classroom?
Inclusive Practices	Do you try to understand the students?	How?	Can you share an example?
	How do you see your role as a teacher in mediating the values of society?	Do you reflect on these experiences?	Can you share an instance when you felt that the class influenced your experience? Can you share an instance when your own experiences influenced what was happening in class?
	How do you try to include every student? How do you deal with differences in class?	Do you make them explicit?	Can you give examples where you adopted an inclusive approach? Where you explicit about this? How?
Closing statement: Ask participants if they have any questions. If there are issues that were not addressed but should. Thank participants for sharing their insights and experiences. Remind participants of the confidentiality of data.			

3.7.3 Semi-structured interviews: Parents and students

To further corroborate the findings from the teachers' interviews and narrative scenarios, diverse students and their parents were asked about their views regarding the use of technology in achieving their educational goals (Tables 12 and 13). The parents of diverse students were asked about their digital practices; how they help their children with their homework, whether they use technology or not. They were asked about the difficulties they encounter and the changes they would like to see when using digital technology both at school and at home.

During the interviews, the 10 participants, 5 parents and 5 students were encouraged to speak freely about their experiences and give concrete examples. Further, considering the fact that these students and their parents might not speak the local languages, they were offered other forms of communication, for example students were asked to draw instead of talk. Students and/or parents who do not understand the Maltese or English languages were asked if they accept to have an interpreter.

Table 12

The Parents' Interview Guide

The parent's interview guide		
Opening statement: Explanation of the project and the ground rules of the interview. Read the consent declaration.		
Main Question	**Follow-up Question**	**Probes**
Does your child have a lot of homework?	How do you usually do it? Do you use digital technology?	How do you use it?
Is it easy or difficult to use digital technology to help your child with homework?	Why do you think it was easy? /What are the difficulties you encounter when using digital technology to help your child with homework?	If +ve: What did you do? If -ve: What will you do?
What would you like to know or ask about the way how technology is used at school?	Where you provided with any information or training on technology use from the school?	Can you share an experience? Do you have any suggestions?
Closing statement Ask participants whether there are other issues that were not addressed but should. Thank participants for sharing their insights and experiences. Remind participants of the confidentiality of the data.		

Table 13

The student's interview Guide

The student's interview guide		
Opening statement: Explanation of the project and the ground rules of the interview. Read the consent declaration.		
Main Question	**Follow-up Question**	**Probes**
Do you use different technologies like computer, Tablet, mobile phone etc?	With whom, friends/class teacher/other teachers/ other school staff?	For what? Do you use it in class for homework and study, etc?
What do you find difficult in school work/homework?	How do you manage? Who helps you? Does technology kelps you in these difficulties?	Can you share an experience?
Does your teacher use digital technology?	What is a fun way of using it? What is a boring way of using it?	Can you share an experience?
Closing statement Ask participants whether there are other issues that were not addressed but should. Thank participants for sharing their insights and experiences. Remind participants of the confidentiality of the data.		

3.8 Coding

Coding is a fundamental step in qualitative research, providing a structured approach to organising and interpreting data. According to Braun and Clarke (2006), coding involves identifying and labelling meaningful patterns or themes within the data, enabling the researcher to draw connections and insights. In this study, thematic analysis was employed to explore the teachers' dispositions toward digital equity and inclusion. Codes were generated both deductively, informed by the conceptual framework of the educational ecosystem and inductively, arising from the data itself. Saldaña (2016) emphasises the iterative nature of coding, where initial codes are refined and grouped into themes through multiple cycles. This approach ensures analysis of both explicit and latent meanings in the data.

Due to the small scale of the data, to remain close to the data and personally engage with the data, the process of coding was done manually. Rather than relying on the external interpretations of data, this approach enabled a richer building of ideas and concepts. When I started analysing the data I became aware of the possible bias in my interpretations resulting from my experience and literature. I reflected on the possible bias during my first insights which were bracketed so as not to condition or interfere with the data analysis process. This bias was also checked through triangulation and member checking. My findings on the teachers' dispositions to

facilitate digital equity and inclusion were confirmed when a pattern was emerging as I continued analysing the data.

3.9 Research rigour: Trustworthiness and authenticity

To achieve the best research conduct, good practices to validate my research were considered. Guba (1981) suggested two main criteria to establish quality in research: trustworthiness and authenticity. Lincoln and Guba (1985) refined their concept of trustworthiness by introducing the criteria of credibility, transferability, dependability and confirmability. Applying these criteria will ensure quality in my research.

3.9.1 Credibility

To assess the quality of qualitative research its credibility has to be established. This is ascertained by asking whether the findings are in line with the real-life situations of the researcher and the participants (Guba, 1981; Merriam, 2009). One of the underlying assumptions of qualitative research is that "reality is holistic, multidimensional and ever changing" (Merriam, 2009, p213) therefore since reality is always changing credibility is relative to the participants constructions of their reality, which in this study were captured through the responses in the narrative scenarios and during the individual online interviews. Merriam (2009) suggested five main practices to enhance the credibility of the study,

(1) triangulation
(2) member check
(3) adequate engagement in data collection
(4) reflexivity
(5) peer review

However, Bryman (2012) also included that the researcher must follow the best research practices. In this study the best research practices were adhered by following the guidelines from the Faculty's Research Ethics Committee who as soon as my research proposal was accepted, were contacted. Subsequently the Committee initiated the procedure for the Research Ethics clearance. This procedure took time since the research procedures had to be considered and clarified.

To support the credibility of this study, the data was triangulated. Four different types of triangulation were propped by Denzin (1978), however in this study two strategies were applied; through multiple methods and through multiple sources. The first strategy was that of triangulation using multiple methods of collecting data, that were the narrative scenarios and individual interviews. When using multiple methods of data collection, I checked what the teachers told me

during the narrative scenarios with that shared during the interviews, with regards to the access and use of digital technology. The findings from the semi-structured interviews corroborated with those of the narrative scenarios.

Additionally, data was also triangulated between three different sources. Data about the digital practices was collected from multiple sources of data, from the teachers, students and their parents. Data from the teachers' interviews was triangulated with data from the students and parents' interviews.

The second strategy to enhance the credibility of the study was through member checking (Appendix 2). As soon as interviews were conducted they were then transcribed ad verbatim. Participants were asked for their feedback on the emerging findings. This strategy ensures credibility or internal validity and it is called *member checks* or *respondent validation* (Merriam, 2009).

The third strategy involved adequate engagement with the data collection. For adequate engagement with the data it was required from me as a researcher to look for the variations in the data collected and seek alternative answers to the research questions asked during the individual online interviews. For example, all the students shared how much they enjoyed using digital resources because they were easy and fun to use, but then when we were talking about writing the homework on the Tablet, one student felt it was difficult. In this situation I had to find data which supported alternative explanations. What was hindering this student from enjoying using technology like the rest of the students? The alternative explanation could be the poor digital connection or else the lack of the student's typing skills, where the student kept searching for the letters on the keyboard instead of continued typing. I was my duty as a researcher to faithfully report the circumstances taking place during this research. It was required from me to understand the participants' situation and to interpret the participants meaning within that situation. When engaging adequately with data it was also required from me to realise when the data became saturated. That is when I started to hear the same information over and over again, when the participants were sharing no new information.

The fourth strategy involved reflexivity. The values which guided me in this research were that I believe that the teacher's digital practices could be modified to achieve more equitable interactions in multicultural classrooms. However, within the educational system there are other structures which could promote or hinder digital equity and inclusion of diverse students. It is through the teachers' shared experiences that these conditions could be identified.

In discovering the new knowledge, reflexivity enabled me to make the right decisions with regards to ethical issues (Berger, 2015). Every participating teacher's utterance, about one's beliefs and actions towards equitable digital practices were respected and valued during this research. Further my previous teaching experience and the fact that I am a migrant mother, predisposed me to

choose the right actions for all involved. However, to make this research even more just I consulted my supervisors, about any issues which I encountered throughout my research.

This leads to the fifth strategy, that of peer reviewing which enhanced the credibility in my research and was conducted with my supervisors.

3.9.2 Transferability

Transferability as explained by Lincoln and Guba (1985), is the researcher's attempt to ascertain that sufficient contextual information is provided about the research context so that those reading the research can relate their personal experiences with the findings. However, generalisability is not the aim of qualitative research. The purpose of qualitative research is to study in depth a particular phenomenon. Its value is in its uniqueness.

The generalisability in a qualitative study lies in the particularity of the situation being investigated. Learning about a particular situation can be generalised to similar situations in this study what we learn about Maltese teachers' dispositions to equitably use digital resources during the COVID-19 pandemic. This could enlighten us about similar crisis situations, where the use of digital resources is a necessity to reach all students in their education.

To allow for this generalisability a thick description of the settings is provided including the participants, the findings and selected quotes from the participants' utterances. Additionally, greater generalisability was achieved when seeking maximum variation within the sample of teachers (Merriam, 2009). This was done by asking all teachers in the primary years to participate in this study, instead of limiting the year groups.

3.9.3 Dependability

Dependability was explained by Guba (1981) as the requirement to obtain the same results under similar conditions. However, it was also argued that it is very difficult to achieve the same results within an Interpretivist paradigm, since investigations depend on human behaviour, which by nature is continuously changing (Guba, 1981). Interpretivist research also depends on the context where human behaviour is taking place which influence the participants various interpretations of reality.

Several strategies mentioned earlier can be used to ensure dependability, however Guba (1981) added the audit trial, "the researcher's ability to show convincingly how they got there, and how they built confidence that this was the best account possible" (Merriam, 2009, p. 223). Throughout the research process I wrote on a daily basis accounts of activities happening during the research period that might have affected my social world of researcher and that of the participants.

3.9.4 Confirmability

Confirmability requires the state of being neutral or objective, therefore the researcher's values should not intrude in the investigation (Bryman, 2012). Shenton (2004, p.72) explained that for the criterion of confirmability to be achieved, "steps must be taken to help ensure as far as possible that the work's findings are the result of the experiences and ideas of the informants rather than the characteristics and preferences of the researcher." This can be achieved through the thorough preparation of the research instruments. The preparation of the Interview Guide helped me to avoid repeating and leading questions.

However ongoing reflection was critical for the rigour of my study. During the research process I acknowledged changes that were required to be made during the data collections. For example, when I was conducting my first interview I realised a research bias which is critical to the trustworthiness of the data collection. In the opening question I asked teachers about their digital practices, whether they use digital resources with students coming from diverse cultural backgrounds. The teachers' response was that they use digital resources with everyone. Then I realised that unintentionally, because I was so focussed on my research area, I was leading my participants towards a certain response, thus limiting further exploration. I then quickly changed my question towards all the students. Since when using digital technology meaning is constructed through the mutual interactions of all those present in class, both local and foreign students, therefore the teachers' experiences are interpreted when all the students are using digital resources in communication and learning. Additionally, asking a teacher whether one uses digital resources with all the class is apt to encourage more possibilities therefore recognising multiple realities rather than considering only a particular group of students.

3.9.5 Authenticity

Together with the above four mentioned criteria for trustworthiness, the criterion of authenticity was also suggested to be considered by Lincoln and Guba (1985). It was required from me as a researcher to be careful about personal leanings towards particular values or theoretical preferences. As a researcher I tried to represent the diversity of opinion and backgrounds of all participants, to note their underlying concerns, beliefs and strategies. I became aware that the interview question contributed towards enlarging the teachers' personal constructions, their beliefs and actions towards digital equity and inclusion, in developing ontological authenticity (Guba & Lincoln, 1994). During the interviews, several teachers stated that they had never reflected on the questions I was asking them, however they felt they were meaningful to their life experiences. Teachers felt it was an opportunity to be able to share their new digital experiences at a time when

physical interactions were limited. I felt a sense of openness and understanding among all those who participated, even though we were far away from each other.

3.10 Audit trial

In this section I discuss my reflections throughout the research process, the decisions made with regards to the encountered problems during the COVID-19 pandemic.

This research evolved during the world-wide COVID-19 pandemic. At first, I thought it was pointless to continue with my research since schools were closed and there were so many uncertainties about how the virus will continue to affect and disrupt our lives. However, a consequence to this situation was that some teachers started to use digital technology more in order to connect with their students who were quarantined at home. Education became dependent on the teacher's dispositions to use digital technology. The teachers' dispositions to use digital technology was not an artificial imposition on them because they were seeking ways how to use it. Consequently, as a researcher I felt it was an opportunity to take note and explore further the teachers' experiences during this extraordinary time. My decision to continue with this research seemed the best option.

However, conducting this research was challenging to do during the pandemic, when various limitations arose including the social constraints created by the epidemy itself, closed schools, and poor travel connections. It was required from me as a researcher to apply flexible approaches. Initially, I had considered other methods and scheduled several observation slots throughout the scholastic year. My initial plan was to observe the evolving use of digital technology in multicultural classrooms between the teacher and students throughout a scholastic year and then interview the participants. However, after consulting my supervisors I had to find a balance between how to collect the best information and what was doable during this extraordinary time.

I had to organise the data collection during this precarious period when most of the teachers were struggling to keep in contact with their students and when my daily living conditions and those of the teachers, the parents and the students was in a state of permanent flux. At first, I thought it was pointless to continue with my research since schools were closed and there were so many uncertainties about how the virus will continue to affect and disrupt our lives. However, a consequence to this situation was that some teachers started to use digital technology more in order to connect with their students who were quarantined at home. Education became dependent on the teacher's dispositions to use digital technology. Consequently, as a researcher I realised the research potential of the situation that provided me the opportunity to explore the teachers' digital experiences during this extraordinary time.

The COVID-19 outbreak was one of the main events that was influencing every aspect of my research. It was determining the context and the content of my investigation as both the nature and the metrics of interactions were altered. The only means of communication, interaction and collaboration between the researcher, the teachers, the parents and the students was through digital means.

During the pandemic most aspects of life became dependent on digital connections. For those who were connected, the world became small, we were like a big family, but for those who were not connected with the outside world they became increasingly isolated and eventually were lost. Digital connections enabled understanding across countries. This was felt when I was interviewing the teachers and parents online. It seemed as if the distance between us shrunk because we could understand perfectly what the other was going through and we could empathise with each other. Additionally, migrant parents living in Malta empathized with my situation of a migrant mother living in another country, since we were having common experiences, of raising and supporting our children's education in a foreign country.

On the other hand, I could feel the teachers' determination to continue advocating for migrant's children education. One of the participants was a teacher, who was recovering at home from neck injuries with a collar around his neck. He contacted me to participate in this study, because as he said it was the only time he was 'free'. Teachers were very busy during the pandemic, learning the new digital skills and applying them in their teaching. Most of the interviews were conducted late in the evening or during the weekend or holidays. These things encouraged me to continue with my investigation. I felt that if the participants voluntarily decided to participate in this research, I had the obligation to present their voice since they were sharing their precious time with me.

This chapter highlighted the various aspects of methodology, including the research strategy, the data collection process, the data analysis and the ethical considerations. These factors provide a sound platform that guides me through the nest research phase involving data gathering, management and analysis, and eventually to the identification of valid and reliable answers to the research questions.

Chapter 4. Data analysis and findings

In the previous chapter, the choice of methods used in this investigation, that of the narrative scenarios and the individual interviews with the teachers, students and their parents were discussed. Their use is justified since I am interested in investigating the teachers' dispositions, their tendencies "to act in a particular manner, under particular circumstances, based on their beliefs" (Villegas, 2007, p.10), to facilitate digital equity and inclusion in multicultural classrooms. In this chapter I will analyse the data collected with these methods to find out about the teachers' dispositions, their beliefs and actions towards digital equity and inclusion which are critical to identify if we want to make changes in our approaches to justified teaching and learning in multicultural spaces (Howard, 1999; Nieto, 2005; Gay, 2013).

Further since dispositions are influenced by the context (Nelsen, 2015), the Maltese teachers' dispositions were influenced by the circumstances developed during the COVID-19 pandemic. In this thesis the term 'teacher' will refer specifically to the Maltese primary school teachers participating in the study. Framed within the metaphor of the educational ecosystem (Niemi, 2021) it was possible for me to view the teachers' dispositions to facilitate equitable digital practices in the classroom, as influenced by the encountered challenges and opportunities during the pandemic, from the three system's levels, the macro, meso and micro levels. This view enabled me to identify the various determinants that influenced the teachers' dispositions, that enabled or hindered the facilitation of equitable digital practices in multicultural classrooms. Consequently, the research questions to explore the teachers' dispositions to facilitate digital equity and inclusion during the COVID-19 pandemic were:

1. Which were the opportunities that influenced the teachers 'dispositions to facilitate digital equity and inclusion?
2. Which were the challenges that influenced the teachers' dispositions to facilitate digital equity and inclusion?
3. In such contexts how were the teachers' dispositions manifested when recognising the students' differences in digital access?
4. In such contexts how were the teachers' dispositions manifested when using digital technology for teaching and learning?
5. In such contexts how were the teachers' dispositions manifested when facilitating inclusive practices?

Through these research questions data was analysed to identify the opportunities and challenges within the Maltese education system influencing the teachers' dispositions to facilitate digital equity and inclusion. The opportunities and challenges present in the social structure such as the country's

history, the collective memory, the teachers' education, the national inclusive policies and the curriculum and the evaluation system.

Teachers recognised differences in digital access when trying to implement the national inclusive policy by providing equal opportunities and quality support according to each student's diverse needs. When using digital technology for teaching and learning teachers implemented the national curriculum and the evaluation system, where rather than hoarding of content with the use of technology learning was student-centred and they were learning at their own pace, according to their needs and abilities. This predisposed teachers to use digital tools according to the students' needs, thus, redistributing the resources to those who needed them most. Teachers facilitated inclusive practices by changing their beliefs towards the students' diverse population and valued their differences.

Thus, it is hoped that the findings will shed light on the teachers' beliefs and strategies, their dispositions as influenced by current societal trends.

In this chapter, based on the theoretical framework and the research questions, the analysis and the findings are illustrated in two phases. The first phase was dedicated to answer the first research question, to find out the determinants, the opportunities and challenges that enabled or hindered the teachers' dispositions towards digital equity and inclusion. The second phase was dedicated to answer the second research question, that is to investigate the teachers' beliefs and actions, their dispositions as influenced by these challenges and opportunities.

4.1 The challenges and opportunities that influenced the teachers' dispositions towards digital equity and inclusion.

In answering the first two research questions, data was inductively analysed using thematic qualitative analysis (Braun & Clarke, 2006), to find the opportunities and challenges within the education system which influenced the teachers' dispositions towards equitable digital practices in multicultural classrooms.

This choice of thematic analysis enabled flexibility to explore the teachers' experiences, their reflections on their beliefs when they interacted with diverse students when using digital technology. The process of thematic analysis involved familiarising myself with the data set, which included the teachers' responses to the narrative scenarios (Daiute, 2018) and the teachers', students' and parents transcribed individual interviews. The participants' narratives were analysed through the repeated reading of the transcripts and referencing to the literature, to identify the determinants that enabled or hindered the teachers to facilitate digital equity and inclusion during the COVID-19 pandemic.

All data set was given the same attention and due to the small scale of the study, coding was done manually, systematically searching for codes in the entire data set. It involved a step by step systematic analyses, constantly moving forward and backwards among the data set, searching for these codes, while adopting an ongoing reflexive dialogue while considering the literature.

To help in the organisation of data, the teachers' practices were categorised in three broad categories, as illustrated in the conceptual framework with reference to the literature review. These categories include digital access, digital use, and inclusive practices. Then a coding manual was developed indicating each category's definition and description as illustrated in Table 14.

Table 14

The Code Manual

Code 1	
Label	**Digital access**
Definition	The teacher recognises the students and their parents access to digital technology.
Description	The teacher becomes aware of the differences in the students' and their parents' access to digital technology.
Code 2	
Label	**Digital use**
Definition	The teacher uses digital technology to interact with others during teaching and learning.
Description	Through the use of digital technology adapts one's strategies according to the students' needs and abilities to make possible the interactions for teaching and learning.
Code 3	
Label	**Inclusive practices**
Definition	The teacher uses digital resources to integrate all students.
Description	The teacher delivers inclusive practices with the use of digital technology for the integration of all students.

A critical step to ascertain the validity of the code was to test its validity within the data set (Fereday & Muir-Cochrane, 2006). This was done by choosing selections from the interviews and narrative scenarios and then test the applicability of the codes, indicated in the manual. My supervisor was invited to code the selections and then the results were compared with the researcher's results. Excerpts from the interviews were randomly selected. Table 15 shows an example of applying the manual code while examining a teacher's interview.

Table 15

An Example of Codes Developed a priori from the Template of Codes

Theory-driven code	*Data from a teacher's interview*
Inclusive practice	"Technology enabled him to do a presentation very well We were speaking about our culture They bring a cultural item And he would do it in Russian… The other students became so interested in Russian He felt that 'someone is interested in me' And it was something that worked quiet well with this boy"
Reflection	This extract shows the teacher recognised and valued the student's differences. The teacher believed that the newly arrived student should be included in the lesson even if he does not know the languages of instruction (Maltese and English). During a class activity when the students had to share a personal cultural artefact through a Power Point presentation, this student was allowed to use his native language. Through the affordances of technology, the visual aspect, all students could appreciate the different language and new knowledge. The newly arrived student felt as if "someone is interested in me"
Beliefs and actions	Through these teacher's beliefs and actions, the teacher's disposition to risk and try new approaches with technology could be seen. It was risky for the teacher because the local students could have become bored when they had to attend to a presentation in a foreign language, however it turned out otherwise. The local students were curious to discover about the new language and were encouraged to be sensitive, ask about and accept the differences of the newly arrived student.

A list of 518 codes were identified and some illustrated in Table 16 to answer the question:

What influenced the teacher's equitable digital practices in multicultural classrooms?

Are the teachers' equitable digital practices manifested in:

(1) digital access

(2) digital use

(3) inclusive practices

The teachers' strategies towards digital equity and inclusion were sorted across four sets of data:

1. the teacher's dispositions as influenced by digital affordances
2. the teacher's dispositions as influenced by the school
3. the teacher's dispositions as influenced by the parents
4. the teacher's dispositions as influenced by the students

Table 16

Some of the Identified Codes (descriptors) within the Different Contexts

Context	Descriptors
Digital affordances	Connections, fun, facilitator, flexibility, problem solving, discovery, meaningful, adaptations, Reward, Stories, visual & auditory, enhance curiosity, instant feedback, time consuming, easy to use.
School	Training, safety class, tablet given in Year 4, colleagues, education system, mixed classes, Internet, supportive system, tolerance, care, quality education, can do attitude, school ethos.
Parents	Home environment, values, partnership, collaboration, home technology, parent's work, parental support, barriers, expectations, communication, build relationships, patriarchal, social media.
Student	Language, digital competence, brokers, sensitivity, diversity, co-presences, future needs, familiarisation, own pace, motivation, needs, unknown future, openness to learn, open to change, uniqueness.

The identified challenges and opportunities which influenced the teachers' dispositions to facilitate equitable digital practices in multicultural classrooms, when they

1. recognise differences in digital access
2. use digital technology for teaching and learning
3. facilitate inclusive practices.

These opportunities and challenges (Table 17) are illustrated within the four sets of data which are synonymous with the system's levels of the educational ecosystem, the macro, meso and micro levels (Niemi, 2021).

At the macro level, the teachers' dispositions towards recognising differences in digital access were influenced by the digital affordances to make connections during the COVID-19 pandemic. Digital affordances enabled the possibilities of adapting the curriculum according to the students' abilities and needs. During the pandemic the affordances of digital technology enabled the students to learn and live together.

At the meso level, the school support services influenced the teachers' dispositions towards digital access. The heterogeneity within the school influenced the teachers' dispositions when using digital technology for teaching and learning. The school's contributions, for example the school assembly influenced the teachers' dispositions when facilitating inclusive practices.

At the micro level, the parents' beliefs and expectations influenced the teachers' dispositions when recognising differences in digital access. The parents' use of the social media influenced the teachers' dispositions when using digital technology for teaching and learning. The parent's partnership influenced the teachers' dispositions when facilitating inclusive practices.

Also, at the micro level, the students' diversity influenced the teachers' dispositions when recognising differences in digital access. The students' unique qualities influenced the teachers'

dispositions to use digital technology for teaching and learning. The students' brokering role influenced the teachers' dispositions to facilitate inclusive practices.

Table 17

The Opportunities and Challenges influencing the Teachers' Dispositions

System's levels	Context	Digital access	Digital use	Inclusive practices
Macro	**Digital affordances**	**Connections** The affordance of digital technology to connect with the students and their families	**Possibilities** The possibilities of using technology to continue teaching and learning	**Learn & live together** The affordance of digital technology to live and learn together in diversity
Meso	**School**	**Support** The school support to help teachers connect with diverse students and their parents with the use of digital resources	**Heterogeneous** The mixed abilities and multilingual schools	**School's contribution** Including the school assemblies and the circle time
Micro	**Parents**	**Beliefs & expectations** The teachers' expectations from the parents' participation	**Social media** Including the school Facebook page	**Partnership** An intentional dialogical activity between the teacher and the parents, where the student's learning and wellbeing are considered important by them
Micro	**Student**	**Diversity** The student's diversity includes one's language, epistemologies, culture and skills	**Uniqueness** The student's uniqueness includes one's strengths, needs and past experiences	**Brokering role** The student's role to act as a messenger between the teachers and their parents to deliver information with the use of digital resources

The data about the codes was then organised in Table 18. In this table a relevant quote is being illustrated for each code as an example. Each code has collated relevant data including the equitable digital practice that was coded for the context, the code and the participant's quote.

Table 18

Data About Codes

The equitable digital practice coded for	Context	Determinants (code)	Teachers' quotes
Digital access	Digital affordances	Digital affordances for connectivity	T6: our school used the ClassDojo to communicate with parents. Instead of writing notes on the diary, I shared photos of the activities
	School	Support	T13: well the school is very important because if they if you don't have the support from the school I can't really...do anything whereas the school has like the power to incorporate the students even more
	Parents	Teachers' beliefs and expectations from parents	T19: when their children reach year 6 they tell you that they are old enough, they should be a little more independent.
	Student	Diversity	T8: now this particular student had nothing in the baggage because he suffered the Syrian war and we discovered that he never attended school so, you have to start from there, little by little you teach him for example, you use the app and he manage to do his work we show him step by step
Digital use	Digital affordances	Digital affordances for teaching and learning	T17: instead of just talking you can show pictures, videos; they learn more, they are more interested".
	School	Mixed languages and abilities classrooms	T2: it is a challenge because our system our educational system is not set up properly because if we have lots of foreigners everywhere nowadays we should have a foreign class in every year other than in one class you will have five who speaks English very well and half do not speak English at all so I believe it's a whole system problem
	Parents	Partnership	T11: but the fact that there was no help from home over the time she started to fall back and she was one of those who did not sign the consent form for the sessions, she never entered in the beginning when I started to do the lesson I started communicating with parents in March I started with an email and she was the only one that I have never heard back from I mean I don't know what became of this girl
	Student	Uniqueness	T4: I will have to transmit the message without saying it that they are all so important and everyone have different abilities and special talents for example, if I know that a lower able child has something special I make sure that he transmits this message of what he knows even if it is something that for all of us it is babyish but for him it is something which is very very big
Inclusive practices	Digital affordances	Digital affordances to learn and live together	T5: using digital technology is something which the children have to get used to, I mean we need to equip them with the skills that it takes to use a Tablet, to research on the Internet. I mean the focus nowadays in more on the process

			rather than on the content of learning …I think that the biggest advantage when we are doing digital activities are that we are speaking the children's language
	School	School's contribution	T9: we are not holding (assemblies on) religion, but on values, on how they look after each other, on how to respect everyone. So the children are not leaving the assembly hall, they do the activity with us. And that is helping a lot because even children are seeing the differences, different religions Muslims, Hindus and the children are seeing different religions, different cultures, different clothing and food and they are really being engaged in it, so the differences are accepted
	Parents	Social media	T10: first of all, I don't think Facebook is professional, first I started to use the email, but if a parent there were many who didn't know how to send an email to use MITS or the iLearn at that time then I started to use something that all the parents knew how to use, then I used the professional MS Teams
	Student	Brokering role	T3: I ask the children especially knowing that there are some parents who can understand neither English nor Maltese and I told them now you have to be the person who translate for me and for your mum and your dad so, I gave them sort of a sense of responsibility, I have children who are 11 years old so they can stay we may also need help for their younger siblings if they need to translate

The teachers' dispositions as influenced by these determinants are discussed in the following section and in the process answering the next three research questions by identifying the teachers' beliefs and actions, their dispositions and how they evolved during this investigation. Maltese teachers' dispositions are investigated from:

1. the recognition and valuing of differences in digital access
2. the teaching and learning interactions when using digital technology
3. the inclusive practices for the integration of diverse students and their parents.

The rest of this chapter is organised in four main parts, where each part is a key disposition towards promoting equitable practices and inclusion. The following are the four key teachers' dispositions: (1) to care, (2) to mutually interact, (3) to give personalised attention and (4) to integrate. These key dispositions were formed from the identified teachers' dispositions during the data analysis. The identified teachers' dispositions evolved from each other and sometimes were exhibited concurrently.

Starting with the key disposition to care, which was developed from the teachers' reflections on the students' digital access. Teachers empathised with the students' social realities. To remain

connected with the students during the COVID-19 pandemic the teachers' dispositions evolved to learn about the students' social realities.

The key disposition to mutually interact evolved from the teachers' caring disposition to learn about the students' different life experiences and the parents' beliefs and expectations. Through the school support they developed dispositions to take risks, collaborate, share information, develop trust and persevere towards acquiring the intended learning goals.

Further the key disposition to give personalised attention developed from the current experienced opportunities and challenges of heterogeneous schools. When using digital technology teachers became flexible and resourceful to accommodate the students' unique needs and abilities and considered the social media to interact with the parents.

The key disposition to integrate the students evolved from the teachers' respect to differences. Teachers sought mediation through partnership with the parents and the students' brokering role towards integrating all students within the educational system.

4.2 The teachers' caring dispositions when recognising the students' differences in digital access

The main findings in this section are:

- The teachers' dispositions evolved from their reflections on the students' differences in digital access.
- Through digital affordances teachers could remain connected with the students during the COVID-19 pandemic.
- Teachers empathised with the students' social realities.
- Teachers cared for the students' continuation of learning.

4.2.1 Digital connections

4.2.1.1 Staying connected.

During the COVID-19 pandemic, the teachers' dispositions to connect with the students were influenced by the digital affordances to interact; physically, virtually, both through artifacts and socially (Berthelsen & Tannert, 2020). The teachers' dispositions to facilitate equitable digital practices in multicultural classrooms was explored when recognising differences in the students' digital access. These dispositions evolved from the teachers' reflections when they empathised with the students' circumstances and cared for their continuation of learning. The teachers' dispositions evolved from caring to being open to learn, take risks, collaborate, share and trust others and persevere to achieve the intended educational goals.

Various teachers T1 (233-253); T2 (51-56; T3, 160-167); T11 (4-7); T18 (40-47); T20 (53-56) believed that the affordances of digital technology during the pandemic made it possible for them and the students to remain connected and learn together. This made them change their practices from previous onsite to online teaching and learning practices. The teachers became aware about the students' differences in digital access not only at home but also at school. This included the availability of Internet connection, the type of technology that was available at home, the students' digital skills and the provision of the tablet to the student by the school. From this awareness teachers empathised with the students and developed a caring disposition.

4.2.1.2 The digital access at home.

Data from the interview transcripts point out that although teachers T2 (198-206), T4 (19-27) (86-90), T5 (26-31), T17 (344-351) (326-328) were willing to use digital technology to reach and teach all students, they realised that not all families had the Internet connection. T4 empathised with the students' situation and was convinced to try and find alternative solutions. T4 translated and sent printed educational material to the migrant students and their parents who had no Internet connection at home and as she stated that "it's either someone is going to translate or I will write some notes and translate them myself".

This was also illustrated in teachers' responses to the fourth narrative scenario. When a teacher realised that some students were still not connected online, the teacher stated that she would send the students handouts, considering that maybe this student has no Internet available at home. But yet another teacher felt helpless and stated that "if the student doesn't connect online there is nothing I can do". Thus, in trying to connect with all students, the teachers' dispositions evolved both positively and negatively. Positively in considering other options like connecting by sending printing material and negatively when they believed that they could do nothing. Therefore, the inclusion of the students depended on being connected, on them reciprocating, accepting the teacher's invitation to participate.

Teachers also became aware that access to digital technology was influenced by the family situation. In some homes, all the family members were at home making use of the same Internet connection. As was confirmed by P4, since some parents were working from home both the students and the parents were using the Internet. Having various devices connected with the same Wi-Fi, influenced the quality of the connection.

Additionally, teachers T7 and T3 realised that some students did not have the opportunity to use the technology at home, for example in big families of four or more children only one tablet was available. As T7 shared "only the older children made use of the tablet and the younger ones were left alone". T7 empathised with these students and when the schools were open again she allowed

them to do their homework with the use of technology at school. Aware of the students' home situation, the teachers' dispositions changed from becoming aware of their social reality to giving the students space and time to continue their work using digital technology at school.

The diversity in digital access was also depicted in locations where the students were living. For example, teachers realised that it was more difficult to connect with migrant students living in the open centres. The open centre is a place for migrants to stay until they return to the country of origin. Within these circumstances some migrant students living in restricted areas felt that it was not safe to take the tablet at home. Aware of the importance of staying connected during the COVID-19 pandemic, T4 pedagogical beliefs and actions changed to try and find alternative solutions. She allowed the students to leave the tablet at school and use the printed material at home. This situation influenced the teachers' pedagogical beliefs as she felt she must "adapt and give him work that he can work on the handout and the technological aspect I use it only at school".

4.2.1.3 The digital access at school.

The teachers' willingness to digitally connect with all the students was also confirmed by P5 a migrant parent. Even though teachers T2 (198-206), T8, T13 (4-9), T14 (58-61), T15 and T17 felt that it was necessary to use digital technology to remain connected with the students during the COVID-19 pandemic, they realised that at school there were differences in digital access. Such differences in access included, the school's poor Internet connection, the power cuts and the broken digital devices, like the students' Tablets, which took a long time to be repaired.

T2 (198-206) was concerned and shared that when the lessons were being held in class, the Internet connection was poor and all the class teachers would find it extremely difficult to connect all at once, "the Internet would not manage for all the 19 tablets, and it is very slow". T2 was aware that this digital situation, the poor Internet connection affected the activities in the whole school. T2 reflected and shared that, "I know when my next-door teacher is using the Tablets because I can't manage". This Internet challenge influenced the teachers' dispositions, their beliefs that in such situations it was required from them to collaborate, to consider when the other teachers were using the school internet.

The teachers' dispositions were influenced by the quality of the digital resources that were available for the teachers and the students. Teachers T2, T9 and T18 felt that although it was an opportunity for the students to be given a tablet in Year 4, they felt that in primary schools the tablet should be introduced earlier, so that by Year 4 all students are already familiar with the Tablet and know how to use it. T9 was bewildered by the contradictory situation where some students would claim that they didn't know how to use the Tablet but knew how to use the Facebook on their mobile

phones. This contradiction influenced the teachers' pedagogical beliefs that although the use of technology encouraged the students to learn, they were less likely to use it. Teachers considered it a waste of time to daily spend a considerable amount of time explaining to the students how to use the Tablet. They realised that some students lacked the digital skills on how to use the Tablet, while others found the activities on the Tablet less challenging. On the same line, P4 confirmed that the Tablet provided by the school was not that efficient and of good quality and the battery deteriorated quickly.

Additionally, teachers became aware that the Tablet provided by the school was very limiting in its functions and some students did not have a laptop or a computer at home. T5 empathised with these students who did not have other forms of technology at home beside the Tablet, since not having a laptop or a computer at home meant that students couldn't do their research work at home. T5 became concerned about these students that they were not getting the needed online information as the ones who had access to the Internet at home. In such situation teachers cared for the students to continue learning and allowed them to do the research work at school by allocating special time during the school day.

Teachers practised their autonomy in reflecting about what was working and what was not at the moment and considered other possibilities. They prepared a second plan, other teaching material for when the Internet connection failed. They were determined to continue teaching because as T1 believed "with the use of digital technology, learning cannot be stopped". Within this diversity in digital access, for some teachers the second plan included asking the students to use the technology at home. As T13 (51-55) shared when they had no Internet connection she would ask the students to do the online research at home.

> T13: at the moment we have internet problems
> some activities we can't do them in class
> I usually give them as homework so if that they can do research
> I will give it as homework where they can use the Tablet
> they can use it at home instead of in the classroom

Eventually the teachers' caring dispositions to stay connected with the students for the continuation of their learning changed their disposition to become more open to learn about how to use it. As T3 stated due to the abrupt closing of the schools and the change to online teaching and learning we "had to rely even more on technology, we were using the tablet even more than we did before."

However, T3 (520-531) and T8 (302-303) felt that the use of digital technology for the inclusion of all students depended on the teacher's own initiative, on the teacher's consciousness to deal with the students' various needs in class. T3 believed that the teacher was only obliged to follow

the curriculum and prepare the students for the benchmark exams, but then she asked “but in reality, would everyone be learning?” T3 was sure that not everyone was learning in that way, because students have different needs, abilities and languages. Therefore, it was required from the teachers to learn about the students’ needs first and then adapt their strategies. T3 felt that how the policies were set depended on the teacher’s consciousness to adapt one’s work. On the same line T8 felt that teaching was not about a set of things that had to be done, like memorising a set of facts to pass the benchmark exams but rather to prepare the students for their future lives. T8 suggested that teachers need to reflect on their teaching obligations and be more sensitive to the students’ needs.

4.3 The teachers’ disposition to mutually interact when recognising the students’ differences in digital access

The main findings in this section are:

- The teachers’ dispositions evolved from caring to learn about the students’ different social realities and the new digital skills.
- Through the school support services teachers mutually interacted with the students and their parents when they collaborated, share information, trusted each other and persevered to achieve the intended educational goals.
- Teachers learnt about the parents’ beliefs and expectations.
- Teachers learnt about the student’s diversity, one’s language, culture, skills and epistemologies.

4.3.1 The school support services

To stay connected during the COVID-19 pandemic the teachers’ dispositions were influenced by the meso level structure, of the school support. The teachers’ openness to learn disposition was influenced by the school support that enabled digital access through learning of the new digital skills among the teachers, students and their parents. The school support services were already available before the COVID-19 pandemic but their need was felt even more when teaching and learning was being delivered online. This school support was made up of the senior management team (SMT), the IT teacher, the school interpreter and the migrant teacher who during the COVID-19 pandemic also supported the teachers, students and their parents in the acquisition of the new digital skills.

4.3.1.1 The digital training.

Digital access also depended on the teachers' digital competence, which during the COVID-19 pandemic was developed through the training provided by the educational institutions. Teachers T11 (150-163) and T16 felt it was their responsibility to take the risk to learn how to use digital technology during the pandemic. T11 believed that it was lack of professionalism not to know how to use the technology for teaching and learning. She realised that since the online lessons were beneficial for her children, they could also be beneficial to her students. This condition motivated T11 to risk and try the online lessons by first recording her lessons and then send them to the students, and eventually she trying the live online sessions. T11 felt that the students' and the parents' response was a success and if the schools were to close again, she felt prepared to continue the lessons online. The teachers' dispositions evolved from caring about the students' continuation of learning to risk learning the new digital skills.

Digital information and knowledge were shared, both vertically across all the schools and horizontally across partners, between the teachers, the students and their parents during the online training. Access to digital competence was critically required by the teachers, students and parents for the continuation of the students' learning.

The teachers' disposition to learn the digital skills was influenced by the training provided by the school community. Through the SMT, teachers were introduced to various voluntary online course. Most teachers felt that it was their responsibility to continue learning. They felt that the procedure of enrolment for these courses was easy to follow and the schedule flexible.

Both T6 (142-149) and T7 (35-38) felt that the training was short but sufficient for them to continue learning on their own. At first T6 felt very anxious to use technology but after three weeks he started to feel much more confident and managed to adapt the lessons to the online methods. T6 considered the training as critical to enable this change and felt it would have been much difficult for him to adapt to the new digital pedagogies without training. He became open to self-learn how to use the new digital Apps like the MS Teams and the Class Dojo and flexible in changing the previous methods of communication by sending online photos of the activities instead of written notes with the children. The short training sessions boosted the teachers' confidence to continue learning other digital skills on their own.

Teachers T2 (247-254), T4 (218-229), T5 (145-153) and T18 (218-225) looked forward to participate during these online courses. Teachers felt that the training was important for revision and to keep on learning the new digital practices and followed various courses like the MS Teams and the j2e. T4 felt that it was important to "update myself and ask questions, not only during the pandemic (during the online lessons), but also when I am in class". The teachers' belief that the students should

continue learning during the COVID-19 pandemic evolved to develop professional practices with digital technology.

However, teachers T6, T12, T8 (56-58), and T16 (45-50) experienced a big difference between participating during the training sessions and when they had to apply the new knowledge in class. Teachers believed that technology was difficult to use, the training sessions were overwhelming and they were not confident to teach online. T16 (173-183) was worried that the parents might never learn how to use the new programmes.

4.3.1.2 The teaching of digital skills.

After acknowledging the parents' differences in digital access, the teachers' dispositions changed from awareness to reflecting on how they could use the school support services to collaborate with parents and teach them the new digital skills for the continuation of their children's learning.

It was a challenge for the teachers to not only learn the new digital skills but also to teach the new knowledge and skills. During the pandemic it was not only important for the teacher to practise the digital competences, but also to teach the new digital knowledge, skills and attitudes to the students, so that then they could explain to their parents how to perceive and use the technology. Even though T2 (189-194) reflected and felt that to apply the new digital skills, introduced during the training, was "scary and overwhelming", and that the students might forget things and will not explain everything to their parents she was ready to risk and try. The formation of attitudes was the underlying motivational activity in this situation.

> T2: there is a lot and you need to understand it yourself
> so that you can explain to the children
> and then the children hopefully explain it to their parents
> and obviously because they won't tell everything
> and because everything is still new for everyone
> they have these problems along the way

Some teachers realised that it was difficult to implement the training. One challenge was that the teachers were expected to share their newly developed digital competences with the students and their parents, when some felt that they were not given enough training themselves. As T10 (467-477) shared it was hard for her to use the technology for teaching and learning and she spent a lot of time preparing for the lessons. Additionally, T1 (329-334) felt that there were always some teachers who did not collaborate and felt they were the culprits who resist change. The teachers believed that sometimes the challenge was that not everyone was working towards the same aim. This led to negative dispositions, to a 'can't do' disposition among the teachers.

> T1: The biggest challenge is always
> those teachers who oppose …

teachers who continued saying
"no no it is going to be difficult to organise something like that"
Teachers' attitude is the most challenging thing
when it comes to organise a different activity

4.3.1.3 Developing a sense of collegiality.

They became aware that to gain confidence in the new digital skills, one needs to develop an attitude of collegiality among teachers and to practise daily the new digital skills. The teachers' dispositions towards collegiality was illustrated by T6 who realised that her colleagues had the same level of digital expertise however through the interactions, when they asked each other questions and experimenting together, their confidence increased and they were learning more. The teachers' openness to learn encouraged more risk taking and learning by "trial and error", and they relied on each other for help in practising the new digital skills. T16 felt that without collegial support, it would have been difficult for her to apply the new digital skills.

Further this sense of collegiality was also shared with the parents. As stated by T5 he joined the MS Teams and the Class Dojo training, because his school had chosen these platforms. He felt that it was an opportunity that both the teacher and the parents learnt quickly how to use the ClassDojo online platform. Since this made it possible for the students and the parents to be able to contact the teacher even after the school hours by sharing videos and documents. Maltese teachers' awareness of the students and their parents' diverse digital skills evolved to make them rely more on each other's digital expertise, thus concurrently developing trusting and collaborative dispositions to learn the new digital skills.

On the same line T1 believed that despite the challenges he felt successful in using digital technology during the pandemic, because the SMT, the teachers, the school and the parents were working on the encountered challenges together, "despite the challenges … we are all together and we were rowing the same boat and that's the most important thing". In the process they earned each other's trust and the teachers' dispositions shifted from class control to focusing on collaboration. What seemed to matter most, were not the encountered challenges but the mindset, that the teachers, the students and the parents were all working together to continue learning. Consequently, from collaborative and trusting disposition, the teachers simultaneously developed persevering dispositions to achieve the intended goals.

4.3.1.4 The school support and the parents' communication differences.

At the meso level the teachers' collaborative dispositions were influenced by the parents' digital communication differences and the school support to enable digital access through this diversity.

In their intentions to digitally connect with all parents, teachers came across challenges in the parents' different communication styles. T3 (484-485) believed that it was the school's responsibility to support the teachers to digitally connect with the parents during the pandemic and felt that without the school assistance she wouldn't be able to cope with her work.

Teachers felt it was challenging to digitally connect with those parents who could speak only their native languages, a situation which influenced their access to the school services. T6 (206-216) experienced frustration when neither the teacher could understand the parent, and nor the parent could understand the teacher.

> "I'm sorry but I couldn't understand, him speaking
> I don't think he understands me"

P1, a teacher (LSA) and a mother, also confirmed that some migrant mothers could neither speak Maltese nor English. P1 shared that even though the school provided a language programme for foreigners, some migrant parents still were not interested in joining these language courses. Even though as P1 shared these programmes were very reachable since they were also being delivered online, some migrant parents still did not participate. P1 believed that it was their cultural background which hindered them to reach out, to connect and learn the new digital skills and the new language. P1 felt that what influenced their willingness to collaborate or to seek support from the school and involve themselves in the school activities was their way their life, their social reality, how their system was organised. P1 felt that the parents' beliefs, their social environment, their connections and families influenced their willingness to try and take risks. Additionally, P1 shared that migrant parents' ideas might not be congruent with the beliefs and expectations of the school. Thus, P1 felt that these parents should change their ways of doing things and assimilate within the school community.

> P1: I think there are other things related to the problem
> the school, you should come to school
> but in our school, they bring their ideas from home
> there are a lot of things

Teachers realised that it was critical to connect with and involve all the parents, since not being involved could result in their children not participating during the online lessons. Not being able to digitally connect with all the parents was a main concern for many teachers, however they also felt that they were being supported by the school. Teachers felt that as a school they were collaborating and working towards the same goal of including all the students and their parents.

4.3.2 The parents' beliefs and expectations

When recognising differences in digital access teachers empathised with the students who were not connected online realising that their parents were at work and couldn't stay with them and help them learn how to use the technology.

4.3.2.1 The teachers' expectations from the parents to use digital technology.

During the COVID-19 pandemic teachers believed that the parents' involvement was critical and T20 (434-438) explicitly asked the parents to collaborate. At first T14 (202-211) doubted whether the parents would learn the new digital skills. T14 felt it was risky to try and use technology but with time she was surprised at how quickly the parents and the students learnt how to use the new digital apps and platforms. During the process T18 felt that the parents encouraged her to experiment with the new digital skills that she was learning during the online courses. she made it clear to the parents that she was still learning how to teach online and expected their support. The teachers' dispositions evolved from learning and experimenting with the new digital skills to collaborating with the parents through technology.

Most teachers believed that interacting online with the parents for learning was easy. T21 believed that using technology was nowadays a way of life and T4 shared that parents could easily connect with the teacher and ask questions through the MS Teams Chat. During the pandemic teachers T5 (190-193), T6 (153-159), T7 (148-157), T12 (273-276) and T20 (99-101) tried various ways to involve the parents in the learning process of their children. They were open to learn various forms of communication to digitally connect with all the parents, using the MS Teams chat, the Class Dojo, through video calls and sending emails and messages. T1 (560-569) believed that using technology enabled him to form partnership with the parents and made him feel as if they were facing the pandemic challenges together, as he stated they were 'rowing the same boat'.

> T1: At the moment through Microsoft Teams
> they are sending messages
> that's the main form of contact at the moment
> but they even send email, they send messages,
> we have video calls after school with parents and
> through that I can say that despite the challenges
> the most challenging I ever had to achieve was the pandemic
> and it's quite successful here because I think
> we are all together and we are rowing the same boat
> and that's the most important thing

Through the MS Teams T8 could communicate with the parents. She tried to include and encourage all parents to participate, even when there were differences in languages. Parents used the MS Teams chat to ask the teachers about curricular or scholastic issues. T8 felt that it was difficult both

for the parents to understand the local language and for the teacher to understand the parents' written message on the chat but still, T8 felt that the use of technology was useful and enabled communication.

> T8: of course, it helps me a lot
> because they communicate
> we work with Teams, with Microsoft Teams
> and we communicate there
> where there is a need they send in chat
> and we communicate as we can because even
> our written language is also a problem for them to understand
> so I try to understand their writing
> still difficult, but technology helps
> as long as they know how to use it

Teachers felt that foreign parents were disadvantaged and believed that the lack of involvement was due to the language barrier. Yet even if there was a language barrier, T2 encountered migrant parents who through the use of the tablets managed to interact with her and support their children.

However, sometimes the teachers encountered resistance and lack of collaboration from the parents during the pandemic. T11 (461-469) stated that some parents did not sign the consent form for their child to participate during the online lessons. This led to some students never participating during the online lessons during the COVID-19 pandemic, and the teacher could do nothing about this situation.

Even though T12 posted all the information about the learning activities on the MS Teams, however she realised that not everybody was checking the platform. She tried to understand the parents' situation, why they were not interacting online. She became aware that before the pandemic Maltese students were used to write their homework notes on their notebook, during the pandemic there was a sudden change and teachers started posting these activities on the MS Teams. T12 realised that the parents were still not familiar with the teacher's new strategies and needed time to get accustomed. T12 felt that during the pandemic she couldn't rely on technology because the parents were still used to the written notes and felt that parents needed time to learn the new ways of doing things. Consequently, she asked the students to continue writing their activities on their notebook.

Another challenge was the parents' beliefs about using digital technology. Some parents were not interested in any training because they relied on their children to use technology. P2 shared that she relied on her daughter to use digital technology. Both P2 and P3 stated that during the pandemic they were not provided with digital training from the school. P3 who had technological background felt that it was not easy to use the MS Teams, but it mainly depended on how the teacher used it. P3 was referring to links which the class teacher shared and could not be activated

by the parents during the online lessons. When asked whether he was interested in joining any school training on the use of digital resources at school, P3 said: “Probably not”. P3 felt that changes should come from the school by providing better digital training for the teachers and better digital resources for the students.

T7 wished that all the parents could support their children in their learning, but believed that migrant parents use technology less than the local parents. T7 (408-418) was aware of several factors which influenced migrant parents’ participation when using digital technology and shared that “not all children have the benefit of having their parents staying with them to teach them how to log on the Microsoft Teams, how to access that website or how to do that online activity”. She empathised with foreign parents who had to work harder than the local parents, to pay the bills and their rent, limiting the time they spent with their children.

> T7: I think that they are using it less some of them
> because as I told you not everyone has the means
> and not everyone is technology literate
> and not everyone has the time to spend with their children
> there are different factors
> it’s not only foreigners there are Maltese as well
> but I think the problem is more with the foreigners
> because they have to work more, they have to pay their rent
> so they end up working for longer hours and
> the time with their children is very limited
> and very often these activities are left out

Teachers felt that during the pandemic migrant parent’s experienced different home realities than the local families. T7, T1 and T17 felt since most migrant were expected to work for long hours, their children were left home alone or else with their grandparents who could only speak their native language.

> T1: he was staying with his grandmother and
> to make it worse his grandmother doesn’t know a word in English

On the same line, T7 (434-443) shared her experience when she gave the students some research work to do at home and a particular migrant student “showed interest in doing it but he knew that he couldn’t do it at home” because he was not going to receive any help at home, to find the online information, “no one is going to stay with them to do the research on the internet”.

Teachers truly believed that parents should be present when their children were using the technology and engage with them. T9 (108-112) expected parents to interact more with their children when they were using technology and not leave them alone because they were occupied and quiet. T9 shared that when the students were using digital technology, parents tended to leave their children alone. This was also confirmed by parents P1 and P2 who claimed that they helped

their children with their homework but when they were using digital technology, they left them on their own. T9 felt that students needed to feel the presence of their parents when they were learning with digital technology and encouraged parents to interact more with their children.

4.3.2.2 The digital technology the parents felt comfortable using.

When recognising differences in digital access the teachers' collaborative dispositions were captured in their use of digital technology that the parents felt comfortable using.

T15 distinguished between those who had digital access and those who did not. Those parents who had the technology at home were contacted through the MS Teams while those who didn't were sent a written note with their children. However, during the pandemic teachers were limiting the use of paper because of the COVID-19 virus spread, so instead of written notes T16 (505-519) made use of the social media and informed the parents about the class activities on the Facebook school group, through SMSs, and through the MS Teams.

T6 shared that in her class some parents were not familiar with the use of digital technology and only a few followed the MS Teams. The teacher realised that some parents did not understand him when he communicated with them online, and the problem was not only the language but also his communication style. Consequently, T6 became flexible and resourceful in his teaching and learning approaches and sent pictures of the students' work on the ClassDojo instead of sending written notes. He tried to learn about the parents' digital preferences "the tools they preferred, the methods they find most comfortable" to make the interactions possible with the parents.

T10 (353-375) shared his experience when he realised that a migrant mother lacked the digital and language competences to communicate but was willing to use other digital means of communication. After realising that a particular migrant parent was comfortable using emails instead of the MS Teams, T10 encouraged her to communicate through emails. When T10 changed his expectations from this migrant parent, his dispositions changed from awareness to collaboration in trying to look for the digital activities and resources that the parents felt comfortable using. On the same line T6 tried to find out about this parent digital preferences.

> T6: I want to get to know them one to one
> … about the tools they prefer
> and the methods they find most comfortable

When the teachers became aware of the parents' diverse digital communication preferences, they explored different strategies to digitally connect and collaborate with them. The teachers' expectations that all parents must participate during the online lesson, made them realise that there was not 'one size fits all' way to reach the parents. It was required from the teacher to consider the parents' digital communication preferences. T9 (74-79) tried to involve all parents by asking them to

download the MS Teams and send them educational material, including educational digital games, which parents could play with their children at home.

With some parents, teachers preferred to use the MS Teams, while with others they sent pictures on the Class Dojo, and with other parents they used the messenger or email, or sent written notes to those who did not use technology. Therefore, it was required from the teachers to apply personalised approaches. This was also confirmed by a migrant parent P1 who shared that although she used technology, it was difficult for her to use certain programmes like the j2e but was comfortable using the MS Teams.

The teacher shared an experience when a particular migrant mother was reluctant to join the MS Teams. This parent insisted that she could not join the MS Teams because she did not have a computer or a laptop at home. At first T9 believed that this parent was making excuses so as not to join the online lessons and exclaimed that "huma, ma jkunux iridu jintegraw" meaning "it's they, who don't want to integrate". However, these beliefs changed when T9 (149-157) realised that this parent was not aware that she could still access the MS Teams from her mobile. T9 awareness dispositions changed to tolerating dispositions when her expectations from this migrant parent changed. When T9 realised that the migrant parent lacked the knowledge about digital devices, she didn't know that she had already access to the MS Teams on her mobile. The parent only came to know about this possibility when she communicated with the teacher. T9 dispositions to interact and learn about the migrant parent's situation enabled collaboration and developed new expectations from the parent when using technology.

4.3.2.3 The teachers' expectations from the parents.

In class the teachers' inclusive dispositions were influenced by their expectations from the parents' digital participation. During the COVID-19 pandemic teachers believed that to continue teaching online, it was important for the parents to learn the basic digital skills so as not to interrupt their children's learning.

Differences in digital access were also identified in the parents' digital competence. Initially teachers started to use emails to connect with parents, instead of meeting face-to-face at school and became aware that some parents lacked the basic digital skills. T8 (309-317) felt that not everyone knew how to use the MS teams and T16 shared that if she sent information online, she received no feedback from the parents unless she sent it in the printed form. On the same line T7 became aware that "some parents were illiterate with technology, so they don't know how to use it, how to access the MS Teams, even though there was a lot of information going on … but still it can be difficult to reach these parents". During the pandemic teachers believed that online communication was not the

ideal mode of interacting with some parents because some still found it difficult to connect since it was required from them to know how to use digital technology.

Consequently, during this time teachers experienced various frustrations. T14 (65-73), a first-year teacher, was concerned that it would have been very difficult for an eight-year-old student to continue learning online without the parents' support. Teachers expected that the parents help their children to understand the teacher and work on the tasks together at home with the use of technology. T14 was concerned but hopeful that by time the parents will get used to the online lessons and shared that the first week was difficult for the parents and the students but then they did get used to it.

The teachers' awareness that not all students had the support at home or were digitally confident compelled them to make changes in their teaching practices. In so doing they became aware that other skills were needed by the students, to be able to access digital technology like writing and reading. Teachers empathised with the students coming from war torn countries, who lacked the basic learning skills such as writing and reading. T6 (109-115) believed that migrant students must learn these basic skills like writing and reading before they can use digital resources.

Additionally, some teachers felt that the use of digital technology was detrimental to the other basic skills like reading and writing. Teachers felt that "some children tend to become a bit lazy because of technology; sometimes they lack some basic skills because they tend to depend so much on digital tools". She was aware that teachers cannot use technology for teaching and learning from the start and believed that there should be a certain order how these different skills are introduced and taught in schools. For example, when introducing new words, T6 first used the IWB and then the Tablet. This gave T6 the opportunity to first explaining the reading and writing of the words, and concurrently explain how to use the technology.

The need for accomplishing these basic skills was also shared by the migrant students participating in this study. As S1 and S5 shared, it was difficult for them to type, to find the letters on the keyboard and the slow Internet connection interfered with their work. S5 shared that when his work was not properly saved he lost everything and had to start again. On the same line S1 stated that it took him a long time to find the letters on the keyboard and as a consequence he forgot what he had to write. S5 found the Tablet and Kahoot easy to use however it was difficult for him to write the homework online. Even though technology was available they felt it was time consuming to use because they were not familiar with the keyboard and lacked the typing skills. On the other hand, S2 enjoyed using the laptop and felt that writing the essays on the paper was boring. S2 shared that he preferred to type his essays on the laptop but at school the procedure was that they first wrote their work on paper, and then after it was corrected by the teacher, the students could type it on his laptop.

From these students' experiences when using digital resources, it can be noticed that the teachers were concurrently practising both the writing and digital skills with their students. Teachers tried to apply the new digital skills, but at the same time realised that the previous skills of writing and reading were still needed for the students. There seemed to be several skills needed to use technology, mainly: writing, reading and typing. Teachers tried to find ways to teach these skills to the students within the limited school time however they believed it was time consuming and wished that these skills could be developed concurrently with the support of technology and not competing with each other.

Both the teachers and the parents became aware of the importance of learning how to use digital technology for the continuation of student's learning. Aware that some parents lacked the digital skills to support their children during the online learning, teachers felt that during the pandemic it was the ideal time for the parents to explore how to use digital resources. This was also confirmed by P5 who stated that she looked forward to learn how to use technology effectively. For example, P5 shared an example when she was using Goggle to find historical information about Hagar Qim, a historical Maltese site, but the only information she was finding was related to a touristic attraction and not about its history.

Teachers sometimes held negative beliefs towards involving diverse parents with digital technology. T8 (332-341) felt that migrant parents might think it is difficult to try and use the MS Teams because it is something new and it was difficult to learn the new digital skills. On the same line T9 felt that some parents lacked confidence to use digital technology. She felt there was a "barrier" which hindered the collaboration with some migrant parents. T8 commented that parents tended to give up easily when trying to use technology. They found a lot of excuses that they don't have the right technology, such as "I only have a mobile" or "I don't have a laptop".

Influenced by the teacher's expectations that all parents should participate during the online lessons T9 (165-173) tried to encourage diverse students and their parents to share their past experiences through the use of digital technology. However, T9 realised that "*they do not feel like the others"*. The teacher believed that she made no distinction from where the parents were coming and blamed the parents for not trying to involve themselves. But then when the migrant parent told her "rajtha il-gwerra" "I experienced the war", T9 realised then that they felt different because of their past experiences which needed to be acknowledged. T9 realised that the migrant parent and her family had been through different life experiences than the teacher and the local students. They had been through the war. T9 realised that her expectations were not realistic and acknowledged the parent's and her daughter's different experiences and stated "kif tridha tkun bhall-ohrajn?" meaning "how do you expect her (the student) to be like the others?"

It was from this reflection that the teachers' dispositions evolved from awareness of the students' and their parents' social reality towards respecting differences. The teachers' respect towards differences enabled the parents to feel included since they could interpret the educational processes as meaningful since one's past experiences were recognised and sustained. The teachers' dispositions to mutually interact with the parents, to learn about their beliefs, life experiences and digital preferences, enabled the parents' inclusion in the digital environment.

4.3.2.4 The teachers' expectations from the parents on learning with digital technology.

Additionally, access to digital technology was also influenced by the teachers' expectations from the parents' beliefs on learning and when using digital technology for learning. T17 (360-371), T18 (482-487) and T19 (533-552) became aware that some parents expected their children to be independent and be able to make their own decisions, on whether to join the online lessons or do their homework, a view which was different from their expectations.

T19 believed that certain parents did not encourage their students to persist in their learning, for example to join the online lessons during the pandemic. Some parents considered their 11-year-old child as old enough to decide for himself or herself whether he or she wanted to study or not. On the same line T17 (360-371) encountered parents who expected their children to be independent and decide for themselves whether to do their work or not. When T17 tried to tell a parent that his son was not doing his work, this parent told T17 that: 'I want him to be independent, so he must learn to make his own things'. On a similar line T18 shared that some parents believed it was the teacher's responsibility to take care of the students' learning.

Teachers' dispositions towards the different expectations of parents evolved concurrently to learn about these expectations and to mutually interact with the parents for the students' sake. T7 (461-470) believed that it was difficult for students to participate in class when their parents held different views about learning and she exclaimed "his parents don't value education, it's like why am I coming to school". T7 felt that the student "brings that sense of not being motivated with him" and felt that this student was not supported by his parents. She believed that "the family background played an important role (in this case) the motivation was not there" and he tried to find other ways how to help this student.

T6 (236-242) expected the parents to participate during the online activities for example during the Parent's Day. However, parents did not book an appointment and the teacher felt he could do nothing and renounced that he should "get used to it". T6 felt that he should collaborate with the parents but still he wanted to communicate with them, to share their children's educational progress.

T6: We are having a Parent's Day,

it is going to be in two weeks but it is online
and these parents of the school students
have not booked yet I don't think
and I don't think they will very soon
so, we won't be communicating with them,
you know online like we are
so, it becomes very difficult
I get used to it, yes,
but I still want to communicate with them
you know that their children progressing academically, socially
but since they are not present

This new view of looking at learning made teachers realise that people hold different beliefs and expectations about education. Some teachers considered this view as a learning opportunity and T19 believed that everyone carries one's own baggage, their own opinions and life experiences, "we have to open our minds" and as teachers take the opportunity and give the students an experience of what it means to live with different people coming from another country. Teachers' dispositions evolved from awareness of their expectations from the parents to tolerating differences in parents' beliefs and expectations about learning with digital technology.

Teachers developed dispositions towards respect for differences when they realised that many factors could have contributed towards the parents' lack of participation. As several teachers stated they might not have had the Internet connection or else as P1 shared they could have been influenced by their social background, their values as part of their culture. P1 stated that since she works at a school, she knew how technology was being used during the pandemic but was aware that not all foreign parents knew. P1 believed that parents should be present at school, to learn new ways of living together.

On the same line when asked whether he knew how technology was being used at school, P5 realised that he didn't know much about the use of technology at school. P5 shared that all he knew was that students use the Tablet but he didn't know what they did with it. P5 shared an experience where he discovered that his child was using Kahoot at school when he was using it with his family as an entertainment. P5 wished he could know more about what kind of apps they were using at school, so he might use them at home to help his son more. T1 (545-550) felt frustrated because sometimes he felt that it was the school which distanced the parents from participating in the education of their children. He felt that sometimes parents show rebellion because teachers are restricted in how much they can share about their students, and asked "why not share what is happening with them?"

Additionally, teachers encountered differences in parental engagement even within the same native country. For example, during the pandemic teachers expected to digitally communicate

with all the mothers, however in some cultures this was not possible as they could only digitally communicate with the father. T8 shared her experience where she encountered two migrant mothers coming from the same native country, where in one family the mother used technology to support her child during the online learning, and in the other family the teacher could only communicate digitally with the father. T8 noticed how within the same group of people she encountered different attitudes towards the female's use of technology.

The teachers' dispositions towards digital access were influenced by their belief that all students irrespective whether they were males or females should have access to digital technology. However, teachers became aware that in certain cultures the daughters were treated differently than the sons, when using technology at home. T8 (173-176) and T10 (594-609) shared how within these cultures the males could decide for themselves whether to do their homework or not but on the other hand females, beside doing their homework they were also expected to do the home chores and care for the siblings, thus limiting their time to study at home. Becoming aware of this situation, T8 tried to include the female students to participate in the learning activities by giving them more time to continue their work at school. When learning about their circumstances, teachers developed dispositions to interact with the students.

The teachers' expectations from the parents' engagement in their children's digital learning influenced their dispositions both negatively and positively. Negatively in believing that the teachers could do nothing in such circumstances and positively in persevering to mutually interact with these students and use their differences as a learning opportunity.

4.3.3 The students' diversity

4.3.3.1 Getting to know the student.

At the micro level another determining factor influencing the teachers' dispositions towards recognising differences in digital access were the students' differences.

T2 and T11 felt that the initial days at school were crucial to connect with the students coming from diverse cultural backgrounds. T11 (360-377) was sensitive to the students' differences and tried to build a relationship. T2, 319 -324 believed that the first months serve as a "trial and error" period where the teacher, "have to be very careful" to check the student homework and if he or she "keep coming with the homework missing or else with his or her work all wrong, I have to check and ask what is happening at home".

Teachers became aware of the different students' past experiences. It was a challenge for the teacher to teach some students who carried the effects of war from their native country. T9 (181-184) empathised with the students and was aware that sometimes it was difficult for these

students to share their past experiences or their co-presences, because they felt that no one will understand them. The teacher believed that when students are unable to communicate they build a "wall" around them. T19 felt that it was difficult to understand students who could not speak the languages of instruction, and their non-verbal expressions were very difficult to understand. The teacher felt that one wouldn't know exactly what the student intends to say, she believed that the tablet was a good tool to enable the students to share their experiences in a written form. The teachers' dispositions evolved from awareness of the students' differences to encouraging them to share these experiences with their friends in class.

In getting to know the students T11 asked for information about the new student before joining the class. T11 (360-377) realised that migrant students needed the teacher's feedback when trying to interact in class. Teachers realised that it was a two-way interaction since the students need the reassurance that they were understanding the new meaning in the new culture and that one's interactions were accepted in the new culture. Therefore, it was also important for the student to become familiar with teacher's strategies. Within this process it was noted that giving feedback required mutual interactions, where both the teacher and the student get to understand each other's intentions and actions. On the same line, T3 (78-81, 89-95) highlighted the importance of the newly arrived students to get to know the teacher, to understand the meaning of the teachers' practices.

However, T11 believed it was challenging for the teacher to give feedback to a student who didn't speak the local languages. T11 felt that it was required from the teacher to be sensitive to the student's unique characteristics and gently encourage the student to participate, thus T3 (253-260) highlighted the importance of getting to know the students in a friendly way. T3 developed personalised dispositions to find out for herself how to receive diverse students in class because there were no specific directives from authorities.

> T3: I try to be their friend apart from being their teacher
> I mean this is not always easy but then
> you start sort of getting your way through
> The thing is that I feel that I do it because I want to do it
> but I think we got even in our teacher's duty
> there is no focus about children coming from different backgrounds,
> because we are given some stuff
> where you have to learn on your own

On the same line T1 was careful to learn about the students' unique qualities and believed that everyone had something to offer and could learn from each other. As he stated "not only teach but also learn from the students". T1 disposition to learn about the students evolved to mutually interact with them. In his class he wanted to promote a teaching environment "whereby we are all here to

learn, it's not important where we come from, we all care and we all have many things to offer." T1 wanted to instil in the students that they were unique, they all had many talents, many good qualities to share and that they also learn from each other, not only from the teacher. He felt that it was an advantage that the students tended to accept differences more than adults and tried to promote an inclusive class environment. In the process teachers realised that students have unique qualities and strengths and that it takes time and patience to find out about the student's strengths because they were interpreted differently within different cultures. T1 realised that,

> T1: when it comes for these students' strengths
> it is more hard
> because they are coming from a different background
> you might not be aware of it (the strengths)

4.3.3.2 The student's digital competence.

Additionally, in getting to know about the students' differences, T1 (33-43); T3 (29-44) (536-541) and T6 (70-75) believed that knowing how to use digital technology was nowadays considered a basic need. As T1 stated:

> T1: Nowadays it is part of our lives
> Technology became so important
> people who are not trained with regard to technologies
> are those who are falling behind
> and obviously our work at schools
> and we cannot not expose our students
> and obviously they are the future of our society
> so technology should be used, its importance will sure increase
> So I think that it is a duty of the teacher for me
> to try and use technology
> to try and make use of its benefits

T1 reflected that those students who did not have the digital skills were the ones who were falling behind in society. He became aware that technology has become part of our lives; and felt that it was the teacher's duty to expose students to the use of technology, to try and make use of its affordances in class. T1 cared for the students and felt a sense of responsibility to use digital technology because he believed that the students were the future of our society, which depended on the use of digital technology. On the same line T21 was aware that nowadays the use of digital resources, was a way of life, a need in today's everyday life, not only during the pandemic. At first T21 felt that it was difficult and challenging to use technology, however after realising how important it was for the students, her dispositions changed to being more open to learn and take risks to do what was right for the students. On the same line T3 (29-44) felt it was her duty and responsibility to learn and try to use digital resources, believing that knowing how to use digital resources was a basic human right.

T3: this is our work and everyone should learn
it is a basic human right
it's the same thing how people think about technology…
there are some teachers who are still resistant to use technology …
I mean ok it's not easy for everyone
but we have to keep up with the times

Some teachers became aware that some students experienced lack of confidence to use digital technology because they rarely used technology at home. Consequently, the teachers shared the new digital skills with the students and introduced them to the Tablet. T18 (73-74) shared that during the online lessons, a migrant student took a long time to join the lessons and the reason was that her parents "didn't know from where to start". This circumstance made T18 aware that Year 4 was the year when the tablet was given to the students, and this might have been the first time for some students to use any digital resources. Further teachers felt that the students' confidence to use the school tablet was due to the lack of technology at home. T18 shared an experience when she felt successful that during the online lessons she manged to include a student who lacked the confidence to use technology. She collaborated with his parents and explained step by step, how to log on and how to participate online.

Other teachers realised that some students only knew how to use digital technology to play games, like the PlayStation and to watch videos. T4 cared for the students' future wellbeing and felt that the students were not competent to use the technology as a tool for learning, such as how to prepare a PowerPoint presentation. This was also confirmed by T2 who believed that some students only knew how to use technology to play games. During the COVID-19 pandemic, T2 cared for the students' continuation of learning and took the opportunity to expose the students to different digital tools. On the same line T5 (48-53) shared that he guided the students step by step on how to prepare a PowerPoint presentation. T5 believed that it was the teacher's responsibility to teach them how to use the technology for learning, "that technology isn't just when they see a video or play an online game". T2, T4 and T5 believed that all students need to learn digital skills to prepare them for the future.

Additionally, some teachers became interested in the students' digital practices. T3 (536-541) dispositions evolved to learn about the students' daily digital practices both at school and after school. T3 became interested in the games that her students played and looked for information about them, so that she could continue a conversation with the students when they were talking about the digital games they play at home.

T3: I have my students they live technology
for example, during break I hear them talk about the games they play
sometimes I have no clue what they are saying

so, I take a note of what they say
so, I go home and google them up and sometimes even find the games
because I want to know what they are talking about
why?
because I want to keep up with their conversations

The teachers' dispositions were influenced by the students' diversity in relation to their varying levels of familiarity with technology. T4 (98-103), T6 (99-104), T7 (78-80), T8 (114-119) and T14 (212-214) reflected and became aware that nowadays students are born surrounded with technology and use it daily. T20 (214-221) realised that since birth, students were immersed in technology and thus more familiar with using it than their parents or themselves. Like T20, T14 felt that students also encouraged their parents, who did not know how to use it, to try and use it. T8 (114-119) became aware that even a migrant student who never had a Tablet before, might be familiar with other forms of technologies. T8 believed that nowadays all the students had some form of technology at home.

A lot of teachers also considered the students' diversity in digital competence as an opportunity. For example, T7, T19 and T20 became aware of students' digital abilities and included them in the daily school practices. T19 (59-65) felt it was a challenge for her to learn new digital skills but then the student's familiarity and support encouraged her to learn and use the new digital skills during the online teaching and learning. T19 recounted how sometimes it was the students who ended up showing her how to use technology, "No Miss this is how you should do it". Teachers acknowledged that some students were more motivated than them and their parents to use digital technology. T7 noted that students are born surrounded by technology and "try very hard" to learn the new digital skills. This was also shown in the students' experiences where they all stated that they enjoyed and knew how to use digital apps, such as Kahoot and Study Ladders, games which enabled them to learn but at the same time have fun.

This awareness led the teachers to experiment with technology, to be open and learn from the students while interacting with them. On the same line, T7 (46-48) experienced reversal of roles and developed dispositions to mutually interact with the students. He noted that sometimes it was the students who taught him the new digital features and skills, "sometimes they even find features that I am not familiar with, they teach me".

T6 (99-104) felt that since the students were familiar with technology the advantage was that they found it easy to use, to communicate and to follow the online lessons. T6 felt that technology "is in them" and most students enjoy using it without hesitation. This was also confirmed during the interviews with the students. S1, S2, S3, S4 and S5 all confirming that technology was easy to use and they used it on their own. P4 stated that her child learnt how to use the digital resources on her own

and was quite competent. This parent also stated that he monitored his child's use of technology and made sure that his child was aware of the safety issues regarding the Internet.

Teachers also became aware that most students enjoyed using technology and that for most of the students it was part of their lives. As T3 realised "my students they live technology". Teachers became aware that the students' current and future living was increasingly a technical one. T7 (78-80) felt that if as teachers, they did not use technology, they were not up to date with their students, with the students' world which was a technological one. This realisation changed the teachers' dispositions to learn more about the students' ways of using technology in their daily lives, so as to make the lessons more meaningful for the students. The teachers developed dispositions to learn about the students' daily digital practices while mutually interacting with them.

T19 (66-71) felt that it was the teachers' responsibility to use digital resources and felt that if teachers were not open to learn and use technology in class, they were "indebting the society" meaning that they are not doing their duty up to address current and future societal needs. Additionally, T19 reflected that education was not only about teaching subjects like Maths, English and Maltese, but also to prepare the students to integrate and contribute in an increasingly digitalised society.

4.4 The teachers' disposition to personalise learning when using digital technology for teaching and learning

The main findings in this section are:

- The teachers became aware of the possibilities of using digital technology for teaching and learning.
- Teachers developed flexible and resourceful dispositions to interact in mixed ability classrooms and multilingual schools.
- Concurrently the teachers' dispositions evolved to deliver fun, meaningful and personalised teaching and learning experiences.
- Through the social media they interacted with the parents and considered the students' unique qualities, such as one's strengths, needs and past experiences.

4.4.1 The possibilities of digital affordances for teaching and learning

4.4.1.1 The reliance on the use of digital technology.

During the COVID-19 pandemic, the use of digital technology offered a sense of continuity in interactions during teaching and learning, which in Malta took place both online and onsite. The

modes of teaching depended on the directives ushered by the health authorities during the COVID-19 pandemic when to eliminate the virus spread, the social interactions were limited. Within this situation teachers started practising new teaching and learning strategies and the online lessons provided a fun and multimodal way of learning. This enabled the students to better understand and engage in their learning through the available digital resources in Maltese primary classes including, the teacher's laptop, the interactive whiteboard (IWB), the BeeBot and the students' tablet.

Aware of the possibilities of using digital technology for teaching and learning teachers became more flexible in their strategies. For example, the poor Internet connection influenced the teachers' daily activities such as the Parent's Day which during the pandemic was being held online. T17 (326-328) shared that teachers became flexible and resourceful to prepare a second plan, to prepare themselves for the likelihood that they will end up with no Internet connection. Consequently, they decided to carry out the event from their homes.

The teachers' pedagogical concerns directed them to believe that it was their responsibility to use technology even when technology was not available at home or at school; or when the infrastructure was not working, such as when there was no Internet connection. Teachers felt that to continue teaching it was required from them to remain connected with the students through the Internet. They decided not to take things for granted but to be flexible and resourceful in preparing a 'second plan'.

The online interviews gave the teachers the opportunity to reflect about their practices and about the affordances of digital technology during teaching and learning. T1 realised that his digital practices changed during the pandemic. He became aware that before the pandemic he used technology in a certain restricted way; he would just give five minutes for the students to use a particular digital application, but during the pandemic technology became more integrated in his teaching. During this time T1 realised the importance of technology in helping the teachers teach. T1 believed that technology was a resource which enabled the continuous participation and inclusion of all students in their learning. He believed that as a tool, technology gave access to uninterrupted teaching and learning possibilities, as T1 stated "technology could help us to overcome the difficulties when it comes to the students' learning, because technology is a tool that can be useful in whatever happens." For example, teachers like T15 (47-51) stayed connected with the students by sending them homework and feedback through the MS Teams.

The possibilities of using digital technology influenced the teachers' dispositions to become to flexible and resourceful during teaching and learning. This was also illustrated in the teachers' responses to the fourth narrative scenario depicting a situation when a teacher was delivering an online lesson, during which a migrant student was not connected. Most teachers stated that they would use all forms of digital communication to connect with this student. They felt there were many

possibilities to continue teaching and learning online and mentioned the recently introduced apps and platforms during the teachers' COVID-19 pandemic training, that could easily be used on the Tablet. These included the MS Teams, the Class Dojo, through emails, MS Forms, quizzes like Answergarten, Mentimeter and Kahoot. Additionally, teachers could send recordings of the lessons and links to relevant videos and online games. A teacher shared that even though not all the students were connected he could still use the digital resources he could still use the MS Teams, the j2e and other learning app with the rest of the class who were connected. A teacher suggested sending printed material to the student who was not connected.

T14 (142-152) shared some examples of digital interactions during teaching and learning. For example, when working in pairs with the BeeBot, the students gave commands and worked together on a Maths problem. T4 shared that during another activity on their Tablet the students created a comic strip, and developed a dialogue, between two animals of their choice. Teachers felt that the use of technology enabled interactions and students could learn from each other when working in pairs or in groups.

Also, some teachers felt that the use of digital technology enabled the passive students to participate more in class. This was illustrated by the teachers in the first narrative scenarios, when they were asked whether they would use digital resources with a student who was not participating in the class activity. Most teachers commented that they would. Teachers felt that the use of digital technology actually enabled them to start interacting with the passive student, as a teacher stated the use of "digital resources would be part of the approach but not only. I would use online games as a consolidation of the topic being taught". Another teacher T16 (121-130) found that the IWB was an important tool to encourage the students to participate during the lessons. T16 became resourceful and shared that she would use the IWB to introduce the lessons by using music and then ask the students to participate on the IWB during the lessons.

However, during the pandemic, teachers T11 (213-214), T12 (23-24), T16 (224-238), T17 (145-150) and T20 (170-181) felt that even though technology enabled this continuation of learning, the students missed the social interactions which they believed were important for the learning process. Teachers believed that through the interactions, students constructed the new meaning together. When teaching online both T10 and T20 found it difficult to interact with the students online especially as T20 stated when some students did not switch on their camera and the teacher could not see their face.

During the pandemic teachers T2 (86-92), T5 (123-141), T18 (48-51) and T19 (17-26) felt very restricted on how much they could use technology for teaching and learning. T19 believed it was contradictory that the use of technology was considered important to safely continue teaching when she felt that without physically interacting with the students she could not teach online. Similarly,

due to the social distancing restrictions, T2 and T5 felt at loss on how to use digital technology to facilitate group work in class. T2 tried to use certain apps like Kahoot, however group work and discussions were still very limited in class and felt that the students were using technology in a very individualistic way. However, both T5 and T2 became aware that there were ways how to use technology, but T5 felt they were complicated or else he didn't know how to go about organising the lessons and admitted that he was still learning.

4.4.1.2 Digital affordances were influencing the way teachers were teaching and how the students were learning.

Some teachers became aware that through the affordances of digital technology, they were changing the way they teach and how the students learn. Teachers felt that since the information was easily accessible online, it was no longer the teacher's role to spend the lessons giving information to the students but as T5 shared nowadays the focus of learning is "more on the process rather than on the content of learning". The teachers realised that this new way of learning with technology required new skills from the teachers and the students. The students' readiness to learn with technology, made T5 (48-53) more open to adopt personalised ways of teaching and learning with technology. He believed that when using digital technology teachers "are speaking the children's language" and in spite of the students' differences, the use of technology could enable all students to participate during the lessons.

4.4.1.3 Teachers became more flexible and resourceful when using digital technology.

The teachers' dispositions changed to became more flexible and resourceful when applying the new digital practices and teaching and learning became more meaningful for the students. This was confirmed by P2 when she watched her son deliver a PowerPoint presentation from their kitchen during the lockdown. P2 shared her son's experience when he gave a power point presentation on a recipe he had tried during the pandemic. P2 enjoyed the power point presentation that S2 shared with the other students. P2 was surprised with the number of questions the other students asked to her son.

On the same line T1 tried to find out how he could make the students feel more at home in the classroom. T1 and T13 (387-401) developed meaningful dispositions and downloaded meaningful digital activities and information that were relevant to the students. They also translated the content of the lessons to the student's language. During the interview T1 shared an example when he was delivering a lesson about Traditions. T9 believed that to make all students feel welcomed in the new learning environment it was required from her to practising something which was familiar to diverse

students. T9 (279-290) developed personalised dispositions to make all students feel at home by learning a few words in the student's native language. She shared that when a foreign student heard his or her language it made him or her feel good, that he or she belonged in the new environment.

4.4.1.4 Teachers realised the fun aspect when using digital technology.

The flexible and resourceful dispositions towards the affordances of digital technology (Berthelsen & Tannert, 2020) of teachers T2 (34-38), T3 (22-25), T7 (73-76), T10 (308-315), T11 (228-235), T12 (110-114), T14 (131-134), T18 (59-60), and T20 (49-52) evolved to realising that the use of digital resources was fun to use, both for the students and the teacher. The opportunity of having a digital tool to entertain the students in their learning, to make the interactions more bearable and fun, made teachers look for possibilities to interact with diverse students even when the situation was a difficult one. Consequently, to better understand the students' needs the teacher's beliefs and approaches evolved to a more personalised student-centred disposition.

T12 (440-445) commented on a passive student's behaviour and shared that she would interact with the student on a one-to-one level and try to understand what was wrong.

> T12: I had to do changes...
> so he could interact...in a more playful way, I rather
> speak to the child and if he is still passive
> I try to get information about what happened...
> maybe the task is boring for him or something happened before...
> I have to check…even the background

On the same line, T6 (424-432) shared that when trying to connect and communicate with passive students felt that they tended to be "in another world, in their own world so to speak". The teacher felt that they experience moments of co-presence, where he or she will be thinking or daydreaming about their life in the previous country. T6 awareness that the students might not understand his teaching methods because of the language barrier changed his dispositions to try and make the lessons as fun and entertaining as possible.

> T6: but sometimes I feel that they are in another world
> in their own world so to speak
> for example, they may not understand my teaching methods
> not because there is something wrong with it
> I guess but *bhal kulhadd* (like everyone)
> but sometimes because there is a language barrier
> they start fidgeting
> or a student sometimes tend to sleep or day dream
> so, I try to make lessons as entertaining as possible

However, sometimes there were contradictory believes about the use of digital technology among the teachers. Some teachers believed that teaching with technology was a fun way of learning but

others believed that the purpose of using technology was not to have fun but to learn. This contradiction was also illustrated in the narrative scenarios, depicting the teacher giving a maths problem to work in class, when instead of working on the task a migrant student started teasing the other students.

In response to this scenario, most teachers stated they would use digital resources like the IWB, to explain the lesson because they felt that the students participated more. Teachers suggested using the Tablet so the students could watch videos, participate in online games or in quizzes. Teachers suggested sending individual work and use online points to reward the students' positive behaviour. Most participating teachers stated that they would try to explain again on an individual basis, with simpler explanation, rewording the problem to enhance the students' understanding. Various teachers suggested giving a simpler explanation with drawings and positive reinforcement. On the other hand, some teachers stated that they will first tackle the behavioural issues and direct the student's attention to focus on the task, thus the teachers' dispositions becoming more personalised.

However, three teachers stated that they would not use technology and the reason from one of the teachers was that the student might look at the use of digital technology as a fun way of learning. As the teacher stated "Not in this case. I feel that students still view technology as 'fun' way to learn and I would not wish the miscreant to think I was rewarding him or her for such behaviour". One of these teachers felt that at this point instead of using technology, he would try to understand the student's needs through a conversation. The other teacher stated that he "would use some sort of behaviour reward and tell him that if he's not going to behave he won't earn the reward".

The teachers' entertaining dispositions to use digital technology were influenced by the teachers' pedagogical beliefs, on whether the use of technology was fun or not. When teachers held the epistemological belief that the use of technology was a fun way to teach and learn, they used it more. Additionally, teachers realised that the 'fun' aspect also depended on the kind of technology the students had at home. Through the class interactions the teachers became aware that the students experienced the use of digital resources differently and this depended on the type of technology they had at home. Teachers were aware that at home some students had technology which was more advanced and exciting than the one they had at school. On the other hand, there were students who lacked the digital technology at home.

This was illustrated by T2 who shared an experience when a newly arrived migrant student was not interested in any class activity, even when he was given the Tablet. The teacher felt that although it was exciting to use with the other students, this student was only interested in playing his PlayStation at home. T2 was aware that during the COVID-19 pandemic students were spending more time on their digital games such as playing the PlayStation. As a result, the teacher believed

that the school technology might felt boring for some students. T2 felt it was more difficult to try and use the Tablet with students who had more advanced technology at home. She felt as if the school was competing with the technology these students had available at their homes as she stated “there is not much one can do to make it interesting for them, as much as the ones at home”.

However, this belief might have influenced T2 to be resourceful and try and learn from the students the new digital skills, even though they seemed “a bit scary and overwhelming”. She was amazed at how the students manage to discover new things on how to use technology claiming that “sometimes they find things that I don’t know”. The students’ confidence and willingness to experiment encouraged the teachers’ openness to learn more about the use of technology. She became aware of the various possibilities of adapting the use of technology and was flexible to provide the students with personalised work according to their needs. For example, during creative writing, she allowed the students to experiment with the different applications of the Tablet.

4.4.1.5 The multimodal possibilities of using digital technology.

Additionally, the teachers’ dispositions were influenced by the multimodal possibilities of using digital technology. Various teachers T1 (137-154), T10 (98-105) (300-304), T12 (9-14) (168-183) (194-199) (377-380) (384-393), T15 (33-43) (147-154) (362-367) (456-473) (481-495) (507-518), T16 (136-158), T17 (54-62), T18 (432-448), and T20 (330-335), felt that the audio and visual qualities of technology enabled better understanding and engagement from the students during the lessons. They believed that the multimodal ways of using digital resources, including text, pictures, auditory and gesture, enabled all students to participate, irrespective of whether they had the requisite digital skills or access to advanced digital resources at home.

During the COVID-19 pandemic teachers were experimenting with these different modes of digital technology to promote self-care. The teachers’ dispositions to use technology changed from being flexible and resourceful in delivering the curriculum content to more meaningful in delivering health-related content. T16 (136-158) shared how during the pandemic she instructed her students about *the hand’s hygiene*. She showed the students a video including a set of gestures needed to wash one’s hands properly which was also accompanied by a song on how to properly wash their hands, to eliminate the spreading of the virus; an important skill during the pandemic. T16 noted the difference in the student’s behaviour before and after showing this video. T16 realised that before showing the video, the students were not really washing their hands, they just placed their hands under the running water. However, after showing the video they were washing their hands properly, with soap and rubbing their hands together. The students practised what they had observed and heard while watching the video. The multimodal affordances of technology through speech, visual

and gestures made the learning experience more meaningful for the students as they applied the skills for their real-life pandemic situation.

Further T12, T17 and T20 felt that the students understood them better when they used pictures and videos. T12 felt that the use of visuals was critical when teaching the Maltese and English languages. She used the students' experiences as an introduction for the lesson, then a discussion followed and the main themes of the lessons were developed. Sometimes T12 made use of pictures, videos and created stories to highlight the differences among cultures during the class discussions. This gave the students the opportunity to make learning more meaningful and relate to their own experiences.

On the same line T17 (54-62) became aware of the multimodal possibilities of using technology to make the learning experiences more concrete, fun and interesting for the students. He was flexible and resourceful when teaching with technology and realised that "instead of just talking you can show pictures, videos; they learn more, they are more interested". He made use of the interactive whiteboard to show pictures and videos and reflected that the use of technology during teaching and learning was more "interactive and the children understands more".

Teachers encouraged diverse students to use pictures when talking about their previous life experiences in the other countries, so that the other students in class could understand them better and interact with each other. When delivering a lesson on the Maltese numbers T15 realised that, "the language isn't that important because they see the picture". He realised that if a student did not understand the language with the help of digital technology one could still follow the pictures or the video to understand the instructions. T15 shared an activity where the students were asked to match the pictures with numbers on their tablets. She explained that since the use of technology enabled both audio and visual instructions, the students were able to comprehend and follow the instructions better. Some teachers developed more meaningful dispositions when using digital technology for teaching and learning.

However, it was not always possible for the teachers to practice the flexible, resourceful and meaningful dispositions. Although the teachers were willing to make adaptations in their digital practices, the macro level structures such as the benchmark exams were not always supporting the teachers' dispositions towards facilitating equitable digital practices and integration during teaching and learning. T9, 380-388 felt that because of the exams, they tended to use technology less, since preparing the students for the exams was time consuming and T8 stated that the "benchmark exams are the same for everyone, one cannot do adapted work".

The contradiction was that in Year 6 all students were expected to sit for the benchmark examinations, which are the same for everyone. T8 (194-199) (211-213) realised that one cannot always deliver the adapted work, since to pass the benchmark exams all students are expected to

reach the same level of education, irrespective of their differences in abilities, their pace in learning or needs. As T8 stated the "benchmark exams are the same for everyone, one cannot do adapted work". Therefore, even though teachers adapted and differentiated the students' work to support them in their learning, the final benchmark exam was not enabling the students' integration in society since those who failed the exam could not contribute in society by realising their aspirations for the future.

But then T3 questioned whether the students were really learning for life or to pass the exams? This realisation about the role of the school in the students' life developed in T3 personalised dispositions towards teaching and learning according to the students' needs, so that they could learn to live together with the rest of the community.

4.4.2 The heterogeneous schools

The meso level challenge of heterogenous schools influenced the teachers' disposition to become flexible and resourceful when using digital technology during teaching and learning.

4.4.2.1 The class functions as a family.

Teachers T3 (316-322), T4 (374-376), T5 and T8 (112-113) (120-121) felt that in spite of the students' different languages and abilities, the class still functions as a family for the students. They believed that the class was the students' family at school, because it was a safe environment for all the children to be themselves irrespective of their diverse languages and abilities. Teachers believed that the advantage of using digital resources was that it brought the class even more together, as a family. Consequently T3 (175-183) felt that the time during the COVID-19 pandemic period was not the ideal time to stop communicating with the students. T3 was more concerned about the students' wellbeing than their academic achievement and believed that it was not safe for the students when they couldn't speak in any common language but realised that through the digital affordance it was possible to interact. Consequently, T3 caring dispositions changed to learn quickly how to use the MS Teams, so she could stay in touch with all the students during the pandemic.

Consequently, some teachers developed personalised dispositions when using digital technology for teaching and learning. In this way every student felt special and appreciated, even as T4 stated the students with low intellectual ability. She was careful to identify the good things "even if it is something babyish". She gave an example of a newly arrived student who at the beginning of the scholastic year was not able to read. T4 believed that newly arrived students as foreigners "get anxious when reading". She was flexible in her approaches and would choose short sentences. She would ask the newly arrived student to read towards the end of the lesson so that he would have ample of time to listen to the other students. Gradually with the help of the other students the newly

arrived student will start to read. T4 shared that the students tended to clap at the end of his reading and say supportive statements like “Bravu” (well done), you did very well today!”. T4 felt that the students in her class showed “that they are acting as a whole family and they are including everyone”. T4 realised that this caring and accepting behaviour continued even during breaktime when she was not present with the students.

On the same line several teachers T1, T3, T4 and T5, T8 believed that students tended to be more accepting of each other’s differences. Teachers felt they were the adults who instilled in their children the beliefs of “us and them”. On the same line, T1 tried his best to give the students a positive life experience than the one they were brought up in “to give them a positive experience of a better background”. He felt that having mixed abilities and multilingual classes was actually an opportunity, and using digital technology in such context enabled the students to meaningfully interact with the other students and learn about their life experiences and the required skills to live together. T1 believed that “technology can bring us all together” and shared an example where with the use of the BeeBot all the students could participate irrespective of their abilities and languages.

Teachers believed that during the lessons the use of digital technology helped diverse students make meaning and participate during the class activities. T13 (95-109) and T16 (359-372) shared that they daily encountered students who could speak neither Maltese nor English and believed that this situation made the teaching experience more difficult because the teacher couldn’t communicate in all the languages. T13 realised that students mostly learn the new language when they interact with their peers. T13 believed that language improvement depended on “the longer they stayed in class because they were listening to their friends”. This realisation influenced T13 dispositions towards meaningful practices and use more Kahoot. The teachers believed it was the right tool to practice and acquire the new language since the students could start with the easy words and phrases and then progress to more difficult words and phrases at their own pace, thus making the process of learning more personalised.

T16 personalised dispositions were depicted when the teacher looked for online information about the students’ native country and found meaningful educational resources for them. He tried to link the students’ previous meaning making and knowledge, with the new knowledge by using digital resources, such as videos and songs which were familiar to the students. T14 (146-152) considered building a pedagogical bridge by asking students, to write a dialogue between any two animals of their preference, including animals from their native countries as a comic strip on their tablet. The activity gave the students the opportunity to share their past experiences and at the same time learn new words and phrases in the new language. The teachers’ meaningful dispositions enabled the students to link previous knowledge with the new knowledge, and share it with their peers.

However, sometimes teachers held deficient beliefs towards diverse students. Teachers shared that sometimes they were surprised when they believed that certain task will not be accomplished by certain students but then with the use of digital technology the outcome proved to be different. It seemed that the use of technology enabled the students to exceed the teachers' expectations. T3 (48-54) was impressed when she compared the written work of a migrant student with a local one, as she did not expect such quality and amount of work. The teachers' beliefs might have influenced her expectations. T3 might have had deficient beliefs about migrant students' educational achievement, and lowered the expectations for these students, when in fact they could do more challenging work. The use of technology enabled the migrant student to accomplish the task like the rest of the class and exceed the teacher's expectations. The teacher's dispositions evolved from deficient disposition to a "can do" disposition as the excerpt below illustrates

> T3: The task was in Maltese but there were children
> who wrote like a big paragraph and
> there were children who wrote less,
> but the amount of work does not reflect where they came from
> I had someone from Serbia who wrote a big chunk of paragraph
> I was impressed because for me it was
> I knew she wanted to learn, but her Maltese was very very good

T8 realised that because of war, diverse students might have missed going to school like the other students. Consequently, T8 became flexible and provided extra support with digital technology and adopted the slogan "with the Tablet we deliver" believing that with the help of technology these students could still learn even if they had a different and difficult past.

The heterogeneity within the school was considered as a "special" opportunity for the teachers. T4 opened up to be flexible and consider new teaching possibilities. Thus teaching and learning became a celebration, where differences were acknowledged and valued for the educational experience. However, T2 (551-563) believed that the language barrier was a challenge for the teacher to interact with all the students. T2 felt that she needs to divide her time between more different tasks and to address the various students' needs, thus influencing both the local and foreign students in their learning. She was aware that both the local and foreign students required different support, to receive the best learning opportunities and felt that "the Maltese students were not given the best learning experience because I have limits how far I can go, because I have to divide my time with foreigners, and the foreigners are not getting the best learning experience either".

Taking into consideration the other teachers' claims, it seems contradictory whether the presence of diverse students in class enhances or else limit the learning experience. Maltese teachers ended up with various students' levels of abilities and different languages in class and T9 (300-307) felt that it was a very confusing situation.

T2 (387-402) and T18 (97-114) felt that the diversity of languages and abilities were a hassle to teach a class. T18 gave an example during the Maths lesson, where one would find students knowing the multiplication tables from one to twelve and other students who would use their fingers to perform a simple subtraction. This situation made T18 divide the class into different groups with different activities using digital technology. T2 (387-402) suggested that schools should have a class for foreigners in every year where newly arrived students are first taught basic English and Maltese. She believed that

> T18: the educational system is not set up properly
> because nowadays we have lots of foreigners everywhere
> we should have a foreign class in every year
> other than having one class who only five students speak very well English
> and half do not speak English at all
> so I believe it's a whole system problem

The teachers' awareness of the tensions that existed within a heterogenous school made them truly believe in educational equity. They believed that this could be achieved through dedicated competence groups, so as indicated in this thesis they showed a change in their dispositions towards equity.

4.4.2.2 The languages influences.

Further the meso level challenge of having mixed abilities and multilingual students within the same schools, influenced the teachers' beliefs on the required languages for the continuation of learning. The outstanding belief was that newly arrived students must at least know one language of instruction, either English or Maltese in order to join the mainstream education. Teachers were aware that newly arrived students who could not speak neither English nor Maltese usually attended the Language Hub. T17 (67-75) shared that she never had students in her class who couldn't speak neither English nor Maltese. She shared that usually those students who were still weak in English or Maltese they attend the Language Hub for a year and then they joined the mainstream education. However, T19 stated that sometimes it did happen that students skipped attending the Language Hub and made it more difficult for them to integrate and for the teachers to adapt their lessons when they join the mainstream classroom. T4 (64-77) shared that the consequences were that she had to adapt all the lessons and start with basic language skills in Maltese and English with these students, while the rest of the class were doing something more advanced.

Within heterogenous classrooms and to compensate for the language differences, the teachers' dispositions evolved from being flexible to giving personalised attention to the students by using digital technology to translate the lessons according to their needs. T16 (4-11) believed that without the app Google Translate she wouldn't have 'survived' because some students didn't

understand anything neither in Maltese nor in English. T2 became more flexible and resourceful and changed her teaching by carefully adapting the text and used more basic words. Compared to the rest of the class, T2 gave this student less work to the students who were not familiar with the language of instruction. Additionally, when giving the students homework he made sure that it was a continuation of the lessons initiated at school and considered the type of support that was available at home. For example, T2 became aware that a particular student had no support at home in the Maltese language because the parents were foreigners, so she developed personalised dispositions to use the tablet to translate the work and give the students tasks which he could do by himself.

Further, teachers T1 (87-100) and T19 (174-180) became aware that with the help of digital resources students could translate the task and look for information in their own native language. T1 shared an experience when he tried to explain the lesson to a migrant student using the English language, which was the third language for this student. But since this student could not speak English, T1 downloaded and translated the learning material and encouraged this student to talk in one's own language, about his country and culture, using a PowerPoint presentation. The teachers' dispositions evolved to make learning more meaningful and the newly arrived student felt that "someone is interested in me".

However, T5 (217-225) felt that it was too taxing on the teacher to translate all the time, she felt it was better to explain on an individual level. T5 felt that the diverse student was still not getting as much as the other students and believed that to understand the whole lesson, she would need to understand the lesson at the moment when it was delivered with the rest of the class. Aware of these limitations, T5 dispositions changed to more personalised practices and believed that this lack of understanding could be compensated for during the other interactions, both during the breaks or after school hours. Both T2 and T21 (142-148) realised that her students were supporting each other even after the school hours when chatting online. T2 gave an example that when a student "forgets his or her book or someone forgets to write the homework, they message each other, and they send pictures of their work and answer each other's questions".

However, some teachers believed that if the students knew the English language, the meso level heterogeneity within the school was not an issue. T7 (42-45) believed that since the English language was the main language used for teaching and learning with technology, he could still continue with the lessons. The teacher felt that it did not make any difference who used the technology, whether a foreign or a local student because the language of instruction was common to all the students. On the same line T20 (155-159) realised that the Maltese language was being used less during the lessons and English was becoming the main language of instruction.

Teachers felt that when using the English language some foreign students felt safer. T19 (245-258) felt that since the English language was widely used in Maltese schools, most foreign

students “feel safer” because some were familiar with the English language. The teachers’ disposition to mediate the lessons by using the English language influenced the local students to try and use the English language and enabled the student’s inclusion.

On the other hand, T10 (277-283) and T20 (155-159) stated that not knowing the Maltese language influenced the student’s learning in other subjects like Social Studies, Religion and History, which were usually taught in Maltese. This created a situation where some students could not participate in these lessons. To facilitate learning and include these students, T10 made use of digital affordances like making language adaptations in various subjects and using videos. For example, the students created a dialogue with the Animator and used the j2e for grammar exercises and also used Kahoot to assess the students’ learning.

To make sure that all students understood their instructions thus including all students, teachers T2 (265-282), T3 (130-140), T5 (95-104), and T13 (86-94) switched between the Maltese and English languages. Teachers believed that the strategy of language switching, also enhanced the understanding and learning of both languages. Additionally, T6 (123-126) felt that with the use of technology teaching and learning could be adapted according to the student’s language needs. He felt that in a bilingual country like Malta, it was considered an advantage if foreigners knew the English language. However, a challenging situation emerged when there was no common language as not everyone knew the English language either.

S1 and S4 also confirmed that although they knew how to use the digital resources and generally used them on their own they both found the Maltese language difficult to write. S1 seemed to be encountering two difficulties; to learn the Maltese language and to learn how to use the Tablet. It was difficult for S1 to learn the two skills at the same time.

4.4.3 The parents’ use of the social media

When using digital technology for teaching and learning the micro level possibility of using the social media influenced the teachers’ dispositions to find ways to interact with the parents and include them in the learning process of their children. Teachers developed dispositions to be flexible and resourceful and use various forms of communication including written notes, emails and the MS Teams but when all means of communication failed during the pandemic, they resorted to the social media. Some teachers sent instructions to the parents on the social media, on how to use other programmes like the MS Teams, to teach the new digital skills.

T10 reflected on the parents’ digital skills and on the digital activities they were familiar with. At first, he started to use the email but many parents still didn’t know how to send an email. Then

T10 (507-517) made use of social media, like Facebook and the Messenger even though he felt that it was professional to use Facebook for the school's activities.

> T10: first of all I don't think Facebook is professional
> I first started to use the email, but if a parent
> there were many who didn't know how to send an email
> to use MITS or the iLearn at that time
> then I started to use something that all the parents knew how to use
> then I used the professional MS Teams

On the same line T7 (397-403) believed that the social media was the most effective way to share the good practices with parents because it reached a wider number of parents and the message was better understood. As she stated:

> T7: nowadays social media is a very powerful tool,
> if you want to convey a message
> it is better to convey it through Facebook
> because it arrives to many people
> and they get the message better

During these interactions, teachers developed meaningful dispositions by modelling the expected behaviour with the parents. T14 (215-218) realised that with time the parents were understanding her more. T14 provided simpler forms of instructions and checked the parents' engagement and their progress. She decided to slow the pace and wait and make sure that everyone was with her, that all the parents understood her and were working together. With time T10 and T14 realised that parents were learning and supporting their children and also helping each other during the online lessons. During the process teachers T6 (65-75), T10 (507-517), T12 (84-87), T15 (73-76) and T16 (505-519) used various means of communication with the parents including the MS Teams, through written notes and through the use of the social media.

As was illustrated by T6 (255-262) he tried to motivate the parents to interact online by providing step by step instructions, on how to join the online portal.

> T6: I did to be fair actually well tell them
> we did write down some steps how to join in the online portal
> in order to motivate the parents
> which might not belong or might not understand everything
> but still nothing so, it's very difficult
> we write down what they have to do step by step
> we give them the website, you know
> I cannot give them my number because that's not allowed

Teachers were flexible to provide extra time for the parents, to try the new technology themselves and with time T14 (212-214) realised that the parents were also helping each other. The parents' interactions encouraged the teachers' T8 (114-119), T11 (186-193) and T12 (273-276) to become

more flexible and confident to teach online thus enabling the students and parents' participation. T11 illustrated that a particular migrant student, although a low achiever was always first to connect online with the support of his mother: "he used to be the first to join the online lessons, because there was his mummy beside him". On the same line T12 stated that most of the parents "see their work, most of the children say their parents stay with them".

4.4.4 The students' uniqueness

When using digital technology for teaching and learning the teachers' dispositions were influenced by the micro level determinant of the student's uniqueness, one's strengths, needs and past experiences. During the interview, T13 was asked how to connect with a newly arrived student, who could not speak neither Maltese nor the English language, she sincerely stated "I don't know what to do". However, T13 believed that the language was not the only difference. There were other differences like the students' meaning making, epistemologies and ways of doing things. She believed that her role as a teacher was to help each student construct the new meaning with the use of digital technology, like using Google Translate to translate the lessons or by using kahoot and online stories to teach new words and phrases.

Further, teachers were flexible and resourceful and felt that through the reading apps, like Nessy, diverse students were introduced to the new language and the colour coding provided on the app helped them develop their reading ability. T13 shared that she used Kahoot to start teaching the students easy words and phrases and then when the students learnt these basic words she used the online apps like Nessy. Through this app the students were led through different levels of reading, starting from the easy level with basic words to more difficult ones as they developed their reading skills, where the levels were colour coded. The teachers' dispositions evolved from learning about the students to construct the new meaning and learn the new language with the use of digital technology.

The teachers' dispositions to use digital resources to encourage personalised interactions with newly arrived students who could not speak the local language, were also illustrated in the second narrative scenario. In this scenario teachers were asked whether they would use digital resources, with a migrant student who could not speak the local language and neither did the parents at home.

Most of the teachers stated that they would use digital resources as tools and they mentioned the IWB, PPT, the MS Teams, the Class Dojo, Didax, interactive digital resources, online games and quizzes like Kahoot, educational websites and learning platforms. One teacher stated that one has to see whether the student had the Internet connection at home, if the Internet was not available the teacher uploaded the educational material on the tablet. Teachers responded that in

such situation they would give a detailed one-to-one pictorial explanation, for example PowerPoint presentations in English. They also stated that they would try and simplify the work, so that when the student go home he will be prepared to do one's work on his or her own. One teacher stated that she "could easily set up an assignment on MS Teams or give differentiated work such as a game with similar mathematical concepts from an educational website". Yet another teacher stated that "each student has an individual maths toolbox in class, so in this case I would give him the appropriate manipulatives from this box for him to take home". Two teachers responded that they would not use digital resources in such scenario. As one teacher stated: "no because the language of instruction is the local language so it's useless".

Therefore, the teachers' dispositions evolved from the need to interact with the students to personalised teaching and learning activities, in developing strategies according to the students' needs and abilities.

Additionally, T13 (340-360) reflected on the differences which were not visible. T13 (366-381) believed that students held different meanings for the same topics done in class.

> T13: Sometimes yes, I realise that
> I am not giving like enough information
> about the other students' countries
> so for example, someone who,
> a migrant student who came from Ethiopia
> like we heard the song and you know
> that she is a different colour from us
> and realise that she is different,
> like her hair is different
> but like what about other things like the location,
> you know, the things
> for example, the things that are natural for our lives
> whereas for us it is normal to have Internet or TV in our homes
> for them it's different,
> for them she told me I have a tiger in my bedroom
> because in Ethiopia, the things are different than ours
> these basic things kind of which are different ...
> sometimes I just miss them, you know
> that's why I had to make it a very important point
> that not everything should be taken for granted
> that they are like us even if they are small things

T13 believed that to get to know the student's uniqueness it was critical to look carefully for the 'unimportant', taken for granted things in the diverse students' lives. T13 reflected and became aware that sometimes she takes things for granted; these things tend to be the daily little things that go unnoticed and were assumed to be the same for everyone. T13 became aware that not all students' differences were visible, like the skin colour. There are also differences of experiences and

ways of doing things. Thus, T13 developed more personalised dispositions and shared an example, when she took for granted that everyone has a tv and internet access at home. She was surprised when a student from Ethiopia stated “I have a tiger in my bedroom”.

During the digital interactions T13 realised “that I am not giving like enough information about the other students’ countries”. She became aware how during a social studies lesson, diverse students did not react the same as the local students during certain topics, as T13 stated “they don’t react how we react” she realised that some things “they don’t know or for them it is something normal”. T13 further explained and illustrated that for example if she is talking about the war, for Maltese students it is a historical fact, a memorial activity, but for some newly arrived students the war is a real thing, which they and their families had just experienced. With this awareness T13 dispositions evolved to make an extra effort “to be careful and look even for the little unimportant things in the students’ lives”.

The teachers’ personalised disposition, to learn about the students’ uniqueness was also illustrated in the teachers’ replies in the narrative scenario when the teacher asked a migrant student to complete a maths task, but instead remained passive. The teachers' responses to how they felt in such situation were mainly that they would feel confused, frustrated, concerned and curious, indicating that they felt the need to get to know the student.

Most teachers stated that they would first try to understand the student, one’s level of academic ability. Three teachers stated that they will be confused and they would ask whether "he is finding difficulties to understand the English language". This teacher stated that she or he would go near him and check what the problem is, "try to evaluate what's the problem first before starting to explain the task". They would then provide one-to-one support by working on the maths work together, while offering tangible hands-on activities like interactive games and YouTube videos. If the problem was not academic one teacher stated that one will, “ask for help from SMT if I find out there is some kind of other difficulty such as emotional or cultural”.

When teachers were asked whether they would use digital resources in this scenario, most teachers stated that they would use digital resources, and suggested the Interactive whiteboard, the tablet for quizzes, online games, PowerPoint presentations, videos, mathematical manipulatives, the BeeBot and iLearn Maths software. One teacher stated that at first, he will use simple handouts and then maybe simple online number games. Another teacher stated that the use of “digital resources would be part of the approach but not only. I would use online games as a consolidation of the topic being taught”.

4.4.4.1 Facilitating learning.

When using digital technology for teaching and learning, beside the students' unique strengths and past experiences, teachers' dispositions were also influenced by the students' unique needs. During the pandemic several teachers T2 (34-38), T3 (22-25), T7 (73-76), T10 (308-315), T11 (228-235), T12 (110-114), T14 (131-134), T18 (59-60), and T20 (49-52) highlighted that with the use of digital technology they could facilitate learning and adapt the resources according to the student's needs and abilities.

On the same line teachers become more flexible to adopt their strategies according to the students' learning abilities. T3 shared her experience when facilitating the class activities to include all students. Some students could write the dialogue by themselves, other students were given a plan, while some students had an exercise where they had to fill in the blanks and others match the correct word.

> T3: everyone is doing the same story if they are writing
> but it has different levels
> some might have fill in the blanks
> some might have questions
> some might have higher order questions
> depending on their level
> so I have about three different types of levels going on at one go

T20 concurrently developed flexible and resourceful dispositions sending different work to different students, thus engaging them more. T7 made use of various digital apps to provide adapted learning opportunities for the students, including PicsAid, Animator, j2e, the Octavo, and Simple Minds. These apps were introduced during the online courses and could be used both on the students' Tablets and on the class IWB. The teachers' dispositions for teaching and learning with technology became more flexible, sometimes T7 used more than one app for the same activity, depending on the kind of support the students needed. For example, when students were making 3-d models T7 gave them popsicles and they searched online information on how to make the models. During creative writing T7 made use of an app called Simple Minds, where beside writing they could add pictures and publish their work on the j2e. When using the various apps, T7 was flexible to choose the right app for the student's educational needs and abilities.

During another activity the students used the PicsAid app to make a slogan, and yet during another activity the students used the Animator to produce a video showing how to make hot chocolate. T7 made use of quizzes at the end of the lessons to assess the students' learning. T7 felt that quizzes were a less stressful form of assessment for the students since they enjoyed them and at the same time the students received instant feedback. This was also confirmed by a student S2 who enjoyed answering the questions on the Kahoot because it enabled him to understand the lessons

better. During the pandemic teachers were experimenting and learning about how to use the new digital tools. The teachers' openness to learn made them realise that technology was fun to use and it enabled flexibility in teaching and learning.

Teachers T7 (18-31), T8 (105-107), T10 (63-71), T18 (123-132), T19 (181-191), T21 (39-42) became flexible and resourceful in facilitating more personalised attention by adapting and differentiating the activities with digital resources so that diverse students could participate more. T18 showed how a simple task could be adapted to various activities and gave several examples. During creative writing, T18 provided differentiated activities according to the students' abilities; for some students T18 provided a text, others a set of questions, others were asked to select the correct answer, while other students were asked to fill in the blanks.

On the same line T8 (142-150) shared that with newly arrived students she needed to continuously adapt and give the new student a different work. However, T8 and T21 shared that sometimes the students felt that they were treated differently and asked the teacher to work on the same task as the other students. T8 shared that they tell her 'teacher give me like the others'. Knowing that this student was not capable to accomplish the main task given to the rest of the class, T8 managed to grant the student's wishes by giving him a related task on the Tablet. She tried to make the student feel that he was capable of learning, even though he had not reached the same task level as his peers. The use of the tablet enabled the student's integration, in bridging the gap between the teacher's educational expectations and the student's wishes to be treated like the rest of her classmates.

The teachers' personalised dispositions were illustrated when various teachers T7 (76-77), T10 (35-45) (319-323) and T11 (125-129) agreed that during the pandemic, through the adaptation of activities, they could engage all students in their learning with the use of digital resources. Both T1 and T10 were flexible and resourceful in believing that the use of technology "can make things easier for students with learning difficulties", and it can also help the teacher improve the student's weaknesses. T1 believed that with technology the teacher could facilitate the students' learning by matching the students' unique needs, with the learning activities.

T1 gave a concrete example when a newly arrived student who couldn't speak or understand the local Maltese language and made use of a speech recognition programme to be able to translate the conversations for the student. The teacher was aware that it was not 100% accurate but "it helped to avoid the student's struggles". Through the translated text, this student could interact and learn more with the rest of the class and feel included. The use of digital technology encouraged understanding and interactions amongst the students and the teacher. T1 was resourceful in trying new digital applications and also inclusive in his beliefs and actions.

T1: I think technology is one facilitator

it can make things easier
because for students with learning difficulties
for example, it also matches the students' needs
students also feel safe and have a disposition to learn
and think technology can still be
because we can use technology to help us to get together
and to help us to learn

4.4.4.2 Scaffolding learning.

The teachers' disposition to provide personalised attention to student's differences and uniqueness were illustrated when they scaffolded the lessons. Maltese teachers realised that through digital technologies they could divide the activity into smaller steps and made use of a variety of meaningful and fun activities for the students.

Teachers T8 (177-188) (225-228), T10 (109-117), T12 (203-206) and T14 (173-183) believed that newly arrived students who could not understand the new languages could still participate in the lessons and suggested giving instructions using mini steps when delivering their lessons.

T8 (177-188) (225-228) was aware that these students couldn't follow the same curriculum and was open to change one's practices to a lower educational level. For example, during mathematics and reading sessions T8 used different strategies with lower achieving students. For example, she and gave them divisible whole numbers to make a long division. In this way it was less difficult for the student but he or she could still work on long division.

T10 (109-117) felt that digital resources enabled him to scaffold the teaching and learning material, starting with the easiest part and following the student through. Additionally, the use of digital resources enabled the student to repeat the activity if one encountered difficulty, to learn at one's own pace. T10 shared an experience when he scaffolded the Maltese numbers by recording a smaller range of numbers for the newly arrived student than for the rest of the class. In this way the student could still participate during the lesson by listening to the recorded numbers through a related song.

Scaffolding was also carried out for reading by teachers T4 (360-361), T10 (184-190), T21 (242-247) (227-238). T4 shared that "when I ask him to read I choose the small sentences for him", and through Octavo, a reading app, T21 could adapt the reading level, according to the student's needs. T21 explained that through the app the students were first assessed through a set of questions, to find their reading level. Then according to the score, the right books were suggested to the student to read. The reading app supported the students' reading ability. In this way the student was more apt to read the book because it matched his ability and interest.

To encourage the learning of the new language, several teachers T2 (283-309), T10 (91-105) (156-176) (139-148) and T13 (113-121) encouraged daily reading using apps like Nessy, Study Ladder

and Octavo, with their newly arrived students. The reading activities were colour coded according to the student's reading ability. This enabled the teachers to find the right reading support for the students. After using these digital reading resources these students could also check their understanding by doing the quiz provided at the end of the chapter.

Teachers believed that with the use of technology and the use of various apps, the student could still accomplish the task but at a lower level. T10 scaffolded the lesson into smaller steps and checked continuously the students' understanding. She encouraged the learning of the new language with the Nessy reading app and provided games, songs and recorded the lessons on the Tablet. T10 felt that these adaptations were beneficial for the students' engagement in their learning. T10 was aware that there was not a one fit for all strategy to engage all students.

> T10: they are books for the children
> you are still reading
> everyone is reading but at their own pace
> in their own level and for them
> it will be more beneficial because
> maybe you don't read
> if you're going to read for all, it won't fit for all

4.4.4.3 Coaching.

Additionally, students' uniqueness influenced the teachers' dispositions in their strategies to coach the students' in their learning. They encouraged the students' participation by praising them for their effort by asking them questions to check their understanding and by asking them about what they would like to learn and giving them feedback on their performance.

Through these personalised dispositions, teachers developed a can-do attitude in the classroom. T20 (298-316) reflected on how to support a student who still couldn't read and write. T20 asked a newly arrived students what she thinks about learning and how she preferred to learn. Amongst other ways T20 supported her by using short sentences, gave the student one to one explanations and wrote notes for her. On the same line T12 (37-43) showed dispositions towards giving the students personalised attention and asked them "what would you like to know more about?". T12 allowed the students to decide for themselves what they wanted to learn, in this way she believed she could involve the students more.

T8 (177-188) (225-228) felt that as a teacher one needs to always believe in the students and adopt the best teaching practices. T8 stated that she was willing to give the "utmost", meaning that she was willing to dedicate more time and resources to provide personal attention to the students who needed it most. She shared her experience with a newly arrived student who had only some basic skills. She tried to scaffold his learning on these skills, by first giving him basic work so as not discouraged him and make him believe that he could learn like the others.

T8 suggested reading activities for homework which the student could do on his own because she was aware that he had no one to help him at home. T8 wanted to make sure that the student could do his work on his own so she gave the student a digital version of a book to read on the tablet, considering the student's reading level, where after reading he had a quiz so he could assess his understanding. T8 wanted to develop the student's agency by encouraging him to direct one's learning and use digital technology as a tool in this process. In this way the teacher was coaching the student to become an independent lifelong learner and encouraging him to become responsible for his learning.

During the online lessons T18 (148-163) coached the students by using popsicles with different questions of various difficulty levels, where each popsicle had a different question. Through this arrangement T18 was flexible to enable all students to participate and developed a "can-do" attitude in class. On the same line, T11 (378-410) appreciated the student's effort through a regulated activity where a migrant student was encouraged to participate in class with the help of a star chart and giving the student a reward. T11 realised that when this student finally tried to talk, he was supported by the other students.

Teachers T4 (39-45), T6 (27-32), T10 (582-589), T14 (156-162) and T21 (121-136) believed that the use of technology provided instant feedback and was looked upon as a reward by the students. T14 stated that instant feedback was received after using quizzes or when they plan an essay and send the draft to the teacher. T15 (131-134) believed that technology gave students a second chance because the feedback also included an option to try again in a friendly way. Additionally, teachers believed that using technology provided instant feedback through the points reward system. T4 shared that after the students received their points, their work was published and they could share their work. T10 felt that when the students' published their work on the school platform, it elicited curiosity from the other students and henceforth discussion. T4 felt that it was an achievement for the students to see their published work. This was also confirmed by S3 during the online interview. When asked about what was so special about using the computer, S3 and her parent P3 shared:

R: what is so special on the computer?
S3: that for every level I am given coins as reward
sometimes I don't do the steps correctly
and I have no coins
P3: and she can then buy things, she didn't have the coins last year

R: so she has to go back and read more?
S3: if I don't have enough coins I need to read more yes
sometimes I get an extra bonus after
P3: reading gets harder and harder
that she has to learn at each level

which the type of bonus she is supposed to have
and make sure that she understands the next level
then she will be given normal coins to buy things

R: so this programm leads her to the next level
P3: it gets harder and harder

4.5 The teachers' disposition to integrate all students when facilitating inclusive practices.

The main findings in this section are:

- When facilitating inclusive practices such as the school assemblies or circle time, the teachers developed respect for the students' and their parents' differences.
- Teachers' believed that through digital affordances they could learn and live together during the COVID-19 pandemic.
- To enable these interactions teachers developed dispositions to use mediators, when forming partnership with the parents and the students' brokering role for the integration of both the students and their families.

4.5.1 The digital affordances to learn and live together

During the COVID-19 pandemic the teachers' dispositions towards inclusive practices were influenced by the digital affordances to learn and live together. The teacher's dispositions changed from providing meaningful opportunities to learning to facilitate inclusive practices. During the interviews, teachers were asked about their reactions; when a migrant student caused disruptions in class during a Maths lesson. In their responses various teachers illustrated how through the use of digital technology they provided the students with meaningful access to learning. T6 (445-459) shared that to make learning more personalised and meaningful he would use the student's name in the Maths problem, for example "Max has seven spades". He believed that shared that when mentioning the student's name, one is acknowledging one's presence in class, because "you are mentioning their name, when you could have mentioned anyone else's name".

T7 (447-457) felt that newly arrived students may seem totally distracted or unmotivated to learn and they may feel that they were not good as their peers. She shared an example during a science lesson when they were talking about the weather, the teacher asked the student "What is the weather like in your country?". Then T7 shared the inclusive practice that he would ask the student to look for the information on the Internet and check the weather in one's native country. The teacher's inclusive dispositions were influenced by their beliefs to use "these little things that make them feel more accepted."

It was only after T7 acknowledged and respected the student's differences, that she could then make changes and make learning more meaningful for the student. These were the *taken for granted things*, the teacher's beliefs which required deeper reflection from the teacher and T1 (137-141) believed that "technology is one facilitator, it can make things easier because for example for students with learning difficulties, it also matches their needs and the students also feel safe and have a disposition to learn."

The teachers' dispositions evolved from respect towards using digital technology to mediate differences. T1 (105-133) and T5 (333-342) believed that having diverse students in class was an advantage. T5 tried "to make the best of what they bring, the baggage they come with". It was something that T5 was not only aware of the students' differences, their baggage, but she wanted to learn from them and publicly support them.

> T5: I think that having diversity in class is an advantage
> because I like it to have students from different cultures and
> everything for everyone because I tend to work from their experiences
> from their countries, their traditions so
> I think it is something which I look forward to
> and I think it is not a coincident that
> that most of them happen to be in my class
> of course, the headteacher knows me well
> I try to make the best of what they bring
> the baggage they come with you know

When teachers T11 (612-624), T12 (339-344), T13 (518-531) and T20 (455-464) facilitated inclusive practices with digital affordances they made the students feel more included. T12 and T20 felt that increased awareness of the students' differences enhanced inclusion in class since through digital technology these differences could be used as a learning opportunity. On the same line T11 (612-624) and T13 (518-531) respected the students' differences and used them as resources. T11 shared an example when during the Religion lesson with the topic on *Praying*, he asked the students to voluntarily share their experiences. The teacher helped students prepared their PowerPoint presentations using cartoon characters, which were both educational and entertaining for the students. T11 was aware that the local students held negative believes about certain religions. Using this learning experience, he confronted the students' racist beliefs and made them aware that praying was a common activity in all religions.

T6 (303-321) wanted to let diverse students know that "you are still part of the class". Like T11, T6 tried to find both the sameness and differences within different religions. He made use of pictures depicting the religious differences during a PowerPoint presentation. As T6 stated, he would include pictures of "people wearing the hijab and the Mosque" in his PowerPoint presentations and noticed that diverse students identified with these visuals and exclaimed "look this is where I go" or

"this is how my sister dresses". In this way the students felt a sense of belonging because what the teacher was teaching was meaningful for the students and they felt included.

T13 became aware that it took time to understand diverse students and noticed that there were different types of differences depending on the country the students were coming from. For example, T13 believed that "if they come from Spain it won't be a problem, but for a student for example from Ethiopia obviously there is a greater culture difference". Consequently, she believed in not taking things for granted and spent more time in explaining the lessons in detail. She believed that "their culture is different and it will take a while to get them accustomed to our ways". T13 shared that she encouraged the students to experience the cultural differences through music. During a lesson with the topic "music around the world" she asked the students to present their culture through music and instruments. The students found differences but they were also surprised with the similarities. The students exclaimed that the songs "looks similar to our songs" or "they use the same instruments that we use". The teachers' dispositions evolved from personalised to inclusive dispositions.

Additionally, teachers T3 (105-111), T10 (216-273), T19 (143-157) realised that diverse students enjoyed doing research more than academic work. To include all students T19 carefully selected the topics which were of interest to all students. T19 illustrated an activity on Endangered Species where she realised that the students were really willing to find the information on animals which were familiar to them and in pairs they wrote a dialogue between two endangered animals. From the interactions foreign students had the opportunity to write about those animals which they encountered in their native countries and the local students discovered new knowledge from the writings of their foreign colleagues, making the diverse students feel more included.

The respect for differences disposition was illustrated when T4 (349-367) believed that as a teacher she had the role to carefully convey the message that all students in class were special, that they all have special and unique talents. On the same line T1 (122-129) shared that when encountering diverse students, he tried to find the students' unique strengths and qualities and then use them to involve the students more in the class activities. When asked how diverse students learn best, T1 stressed the importance of encouraging inclusive practices to encourage learning. T1 was aware that all students had different backgrounds not only the foreign students and believed that through sharing "students will be more eager to share, more eager to learn, more eager to try new things".

T1 (105-133) believed that for a newly arrived student everything seemed different. He tried to get to know the students more, their background and where they come from. When asked how he believed that diverse students learnt best, T1 suggested two inclusive practices. The first was that he

tries to make them feel welcomed in class and the second stage to encourage them to interact with the rest of the class.

> T1: I believe that first of all they need to feel at home
> they need to feel welcomed at school
> you know language barrier
> where there would be differences with regards to different languages
> where there are different cultural backgrounds
> you might see your own advantages that maybe
> children might be easier to accept things
> not like adults we are more reluctant
> so children are easier to adapt
> that will be the first step
> then try to encourage interactions between students
> I encourage a lot of sharing because
> whenever background we are coming from
> not just foreign students
> even Maltese students
> nowadays we have different cultural backgrounds
> so it's not like it was, it really changed

When facilitating inclusive practices teachers felt that the students' differences were more accepted in class. T19 (295-303) felt that technology enabled the students to share their life experiences both in class during the circle time and during the school assemblies. Teachers believed that sharing their stories elicited more interest from the other students and helped them think about the other's life experiences. As T19 shared it made the students feel good that they could contribute to some knowledge. T19 (213-216) shared an inclusive experience when she mentioned the penguins during a lesson, an animal which does not live in Malta, but migrant students might have encountered it in their native country. When diverse students shared their knowledge about this animal with others, it made them feel good, and included in the classroom. The teachers' dispositions changed from engaging in meaningful learning experiences to encouraging respect towards the students' different life experiences towards developing inclusive dispositions. During these interactions the teacher and the students developed new meanings and understanding, a new culture in class.

4.5.2 The school contribution

The heterogeneity within the school influenced the teachers' inclusive dispositions that evolved to respecting the diverse views which emerged during discussions. These discussions elicited various views which sometimes were contradictory to the teacher's beliefs. T8 accepted that it was difficult to change certain beliefs and the only way to reach understanding within the students in the classroom was to respect differences. From awareness of the students' different social realities, the

teacher's dispositions evolved to accepting and tolerating more the students' differences and learn the new skills needed to live together in diversity.

The teachers' inclusive dispositions were illustrated during the opportunity for teachers to organize the school online assemblies during the pandemic. These assemblies were delivered using the MS Teams, through the PowerPoint presentations, where the school ethos of inclusion was shared between the teachers and the students.

T10 shared that the headteacher encouraged the teachers to attend training on diversity and to organise the school assemblies around the same theme. She organised the school in a way that diversity could be seen, for example, she decorated the school corridors with the flags of the students' different native countries. When facilitating inclusive practices, the school ethos that "diversity should be celebrated" also influenced the teachers' dispositions towards respect for differences. The headteacher encouraged this school ethos by organising teacher training and encouraged the teachers to organise activities on the theme. Together with the teachers, the headteacher tried to make the students feel included, respected and safe. T4 (396-399) confirmed that by promoting acceptance of diversity as part of the school ethos, the students felt that their contribution was welcomed in the classroom. He shared that his teaching beliefs and learning approaches were influenced by the school culture and ethos towards diversity, that diversity should be celebrated. T4 shared that the aim of the school was that in every year and in every class, there were mixed ability and diverse students,

> T4: the school makes sure that in every class,
> in every year group, there are lower ability kids,
> higher ability kids and migrants
> so all classes are all like this.

T4 (134-141) highlighted that through these process migrant students were developing understandings of the new country, and the local students were learning new experiences from the newly arrived students.

Most teachers T3 (293-304), T10 (415-430) (406-414) (446-448) (431-441), T12 (405-413), T13 (419-424) (502-506), T16 (481-490), T17 (265-270) (283-290) (427-440), T18 (509-513) (533-538) and T20 (479-491) felt that organising 'special activities' like the school assemblies were very important for the diverse students' integration. T1 (489-494) felt having "different flags in the school yard, is not celebrating diversity that celebrates the students, we need to show interest in what they do, by giving them an active role in school," such as participating during the school assemblies.

Teachers T7 and T13 believed that special assemblies were very important because through these activities the school had the power to integrate the students even more; "through these activities these children feel more involved and at home". The teachers felt that it was "like putting a

spot light on these students", where students are recognised and valued for their differences. Additionally, T7 (290-297) felt that these activities were an opportunity to show the diverse students are welcomed, that "we want and we are eager to learn about your background as well", that "they feel acknowledged, they feel that we care about them and we want to know more about them".

Using PowerPoint presentations during the school assemblies was an opportunity to share the students' differences and show respect in diversity. Additionally, teachers used the social media like the school Facebook page to share differences and relevant activities with the parents, acknowledging their origins and diaspora and including them in everyday day life, in the mainstream life. To acknowledge the students' differences during the school assemblies, the teacher asked the students to draw a painting of their native countries to be shared them on the school Facebook page. The pictures represented the students' real-life experiences in their native countries. T7 shared that "the students enjoyed the activity and the parents appreciated it even more, because we acknowledged their background and their origins".

T3 and T10 tried to help the students show respect towards the others' differences. T18 (325-328) believed that respect towards differences was shown when the teacher showed "love, care and control". By control T18 meant that there is a space for dialogue between the teacher and the students, where each side learns about the meaning of the other side and where one does not instantly assume the meaning of the other, but develop understanding by time through dialogue. Additionally, teachers realised that since diverse students have a limited capacity to express themselves in words, they learn best through observations and interactions. T9 (217-218) believed that in class dialogue was encouraged through the teacher's "actions, sensitivity and respect".

T1 (69-76), T3 and T10 (121-132) declared the use of digital resources was an advantage since it brought all the students together. T3 shared an experience when she prepared a PowerPoint presentation with her class to deliver during the school assembly. All the students participated by writing and finding pictures about their different native countries. She felt that the students' diverse contribution was valuable in this presentation as they shared part of themselves, their life experiences in their native country. T3 shared her excitement when delivering this presentation and felt that it was going to be even better than previous ones, the ones delivered on the school premises. She enjoyed the inclusive effect that diversity brings with it when using technology. T3 realised that the message of acceptance and inclusion of diversity was felt even more during the online presentations than when it was being delivered in the school hall. Digital resources enabled this dialogue, interactions between the teachers and the students with different languages and abilities.

On the same line, T4 (406-419) shared her experience when she prepared an online assembly with her class when she experimented with the use of digital technology and asked the students to

send a short video of themselves, saying a few words in their native language or else talk about their native country. She then merged all the students' videos together. The teacher could not believe the result and felt that the merged videos provided "magical" experience. T4 felt that the video depicted the unity that existed in her class even though the students were not working together and at the same time it showed the students as both different and unique. In trying to include all the students in the activity the teachers' dispositions changed from experimenting with the digital technology during the online school assembly to include the students' uniqueness and promote unity.

Several teachers T2 (411-423), T8 (410-418), T13 (303-310), T17 (190-203) and T19 (430-442) highlighted the importance of their role in these activities to instil in students the values of society. Teachers discussed these values during the school assemblies and with their class during circle time. Further teachers felt it was their responsibility, not only to discuss but to model the values of society. Within this multicultural space T1 (339-354), T4 (280-290), T10 (380-402), and T18 (332-336) believed that the teacher's role was not only to talk about the values of acceptance and inclusion but also to model them. Teachers T1 (371-380), T7 (302-316) and T14 (302-309) felt that this was even more critical in primary years, since they believed that at this age the teacher was like a mother to the students.

On the same line teachers tried to teach the students how to live together by respecting and taking care of each other. T10 (380-402) tried to make the students aware that the lack of collaboration from a diverse student could be due to misunderstandings. For example, when playing a game, the student might not understand the rules of the game because of the language difference. T10 tried to make the local students aware that the newly arrived students need more time to understand how to play the game. She believed that the diverse students learn best about one's expectations in the new country by observing and interacting with the other students in the classroom.

Further teachers T19 (135-141) and T20 (72-80) (122-129) felt that digital affordances enabled the teachers to develop sensitivity towards discovering other cultures. For example, T19 became aware that when preparing a PowerPoint presentation both the foreign and local students could easily translate and understand the other language and culture. On the same line T20 felt that the use of digital resources enabled all students to search about far away countries and express themselves in writing about their past experiences in the other countries and then share with others.

T2 (525-536), T12 (307-312), T13 (292-295) and T19 (339-369) (379-392) felt that once the students started discussing things, they developed interest and curiosity, and encouraged questioning on the other's life experiences. The teacher believed that if the Maltese people do not get out of their comfort zones and interact and ask questions with diverse people, they remain with a "closed mentality" reminiscent of a stagnant collective memory. Therefore, T19 considered it an

opportunity for the students to discover about other people's life experiences during the school assemblies. T2 felt that the class was a safe place for the students to ask questions and technology was the tool to help them look up the information generated during the discussions.

T17 also realised that this exposure to differences also led to changes in the students' daily living and shared an experience when the difference in others enabled change in her classroom. She believed that foreign students and their parents think and act differently, some consider the school as not important, "they think differently, not like us, I don't know but for them it seems that the school is not important." She was open to learn from diverse parents and invited them in class to talk to the students about their experiences. These parents talked and showed the students a video about their perception of animals and what it meant to be vegan in their culture. T17 became aware that these interactions increased the students' curiosity as they asked questions. These interactions enabled change in the students' life, who as a class decided to follow a Meat Free Monday. Through the recognition and sharing of differences, the students made choices which led to changes in their lives as a class.

At the meso level the teachers' practiced inclusive practices such as translating the text in the student's native language, making use of storytelling and using the English language instead of Maltese for more communal understanding. Through these practices the teacher's disposition evolved towards mediating differences with digital affordances. Teachers created an inclusive classroom where the local students made an extra effort to speak the language which the newly arrived student could understand. As T2 stated they "would try to speak English as much as possible because of the newly arrived student".

Several teachers including T5 (13-22), T7 (89-110), T14 (110-115) and T19 (48-55) shared their digital strategies on how they made the teaching and learning interactions more inclusive for the students in heterogenous classrooms. Aware that the students paid more attention when using the Tablet, T10 (9-16) downloaded apps and videos related to the lessons and activities according to the students' educational needs. In this way every student could participate during the lessons. For example, some students could watch a video for the explanation, while others could play games on their Tablets. On the same line T5 (13-22) made use of the IWB and the Tablets, to use Google Maps to find the locations, for presentations and to play games online.

T7 (89-110), T14 (110-115) and T19 (48-55) found games on the Internet and downloading them on the IWB and the tablet. T7 made use of quizzes to assess the students' learning, used Simple Mind to prepare the creative writing and Animator to present a movie with the students. T10 (292-295) and T17 (138-140) made use of pictures and videos to make the lesson more meaningful. T10 realised that after trying to teach a student the word *policeman* in Maltese, this student stated,

“Miss illum rajt pulizija", “Miss today I saw a policeman”. For T10 this meant that the student had succeeded in learning the Maltese word because he could apply it into his life experiences.

Further T5 (306-313), T6 (283-298), T15 (338-346), T16 (380-391) and T19 (295-303) believed that storytelling could encourage more understanding and inclusion. T15 believed that when telling stories, for example the story of Ugly Duckling to five-year-old children, the students become aware of the differences themselves. She felt that technology helped her reach the inclusive aims, to make the children aware that differences are part of life and should be accepted. The teachers' dispositions evolved to being more inclusive as they delivered meaningful learning experiences to promoting values through storytelling, to accept diversity and learn how to live together in diversity.

On the same line T6 (283-298) made use of social stories to reflect and respect the students' diversity and to promote the social values, such as “how to act with one another”. T6 developed dispositions towards respect when they believed that values were taught not only through the sharing of content but also the way the teacher models these values during the lessons.

4.5.3 The parents' partnership

When facilitating inclusive practices, the teachers' dispositions were influencing by the parents' partnership. During the pandemic the students' learning depended on the partnership created between the teachers and the parents. Several teachers T3 (175-183), T9 (63-71) (149-157), T14 (375-381), T15 (47-51), and T21 (48-49) (106-111) felt they could use digital technology to communicate with parents and share the educational resources. Teachers T2 (338-345), T18 (200-214) and T20 (434-438) tried to make the parents aware that everyone's participation was important for the continuation of the students' education.

T14 (184-186) encouraged partnership because he felt that sometimes parents understood him better than the students, and had closer relationships with their children and they could then explain to their children. T14 believed that the parents were the ones who had the closest relationship with their children and could understand and support them in their learning.

Teachers also tried to involve the parents during the school assembly. T17 (172-176) asked parents to share a traditional recipe and T5 (292-299) to share a cultural artefact with the students using PowerPoint presentations. This created cultural awareness, by asking the parents to bring *their differences* and talk about them with the students at school.

During these activities, the parental involvement encouraged social awareness and understanding, where the parents were also introduced to the new ways of doing things, thus encouraging mutual respect and understanding. For example, during the Carnival time, teachers realised that not all foreign students were familiar with this Maltese celebration. It was only after teachers T15 and T16 (296-309) showed pictures, videos and played the songs related to this

celebration that foreign students could start to understand. Consequently, the students' enthusiasm made the parents' interested in the event and played the video again and sang the songs together at home. The meaning of the Carnival celebration was introduced to these students' homes through the school activities using digital resources. Further the parents' interest influenced T15's beliefs towards the use of technology, to perceive herself competent, that although she felt that she was not so young, she could still use digital resources to teach her students.

The teachers' dispositions evolved from respecting differences to using 'mediators' to enable participation. T7 (123-141) shared an experience where the headteacher acted as a "mediator" by intervening to enable access to the online information for all parents. She was open to try the new digital practices and asked parents to press a like on the post, so as to know who had seen the post. T7 stated that she always shared the students' work on the MS Teams and at first was disappointed because she felt that the parents were not looking at the posts which meant that the parents were not interested in the children's schoolwork. T7 wanted parents "to see what type of work we are doing everyday", implying that T7 expected that parents would involve themselves every day in their child's learning, by checking the MS Teams and continuing at home what was initiated in class. T7 felt that parents were only interested to use the MS Teams either to participate in the Parents' Day or to look at their children's reports.

When the headmaster acted as a mediator and posted the teacher's work on the school Face Book page T7 received more viewers, more attention from the parents. Through the headteacher's intervention more parents could view the student's work. In a way when parents were viewing their children's work they were included and collaborating in the learning experience. They were showing interest and they might have discussed the activity with their children at home.

On the same line teachersT5, T6 (471-465), T10 (327-342), T12 (453-455) and T13 shared that when they needed to interact with migrant parents they made use of the school services and asked the assistant head or SMT to call or organise a meeting with these parents and communicate with the help of the school interpreter. At other times teachers would connect with the parents through the migrant teacher or ask the IT teacher to connect them with the students and their parents using any of these communication tools: the MS Teams, by email or the Class Dojo, through a video call. Additionally, teachers felt that the IT teacher was of great support on the school premises to help them in their technical problems, to use the new educational programmes and to connect with the students and their parents. However, the challenge arose when both the students and the parents found it difficult to connect during the online lessons when assistance was needed online. In this situation both the teachers and the parents experienced lack of support.

Teachers believed that the school support, through for example the SMT was critical for the teachers to enable the parents to participate and feel included in their children's education. T14

believed that sometimes the parents understood him better than the students and felt that it was important for him to keep contact with the parents, because through their feedback she managed to understand the students better. The parents were also used as “mediators” for the students’ learning.

in forming partnership like T1, T4 did not give up on communicating with the parents, and considered inclusive practices. When the technology was not accessible, he wrote a note instead and hoped that someone will translate for them at home. However, this option depended on the support of other people, on someone who could read and translate the message for the parents at home. Therefore, the teachers’ use of the school support depended on the parents’ skills, their reading, writing and digital skills. Without these skills, parents relied on their children to use technology as was also indicated by P2, who relied on her daughter to use technology and inform herself about the school activities. When trying to communicate with parents, the teacher changed from using digital means of communication to previous means of communication, like writing notes. Teachers switched between the two, digital and written communication depending on the parents’ needs and abilities.

However, T5 felt that what hindered communication with parents was not their different communication style or different language but the time of the pandemic which was different from everyday life. T1 shared that migrant parents showed complete rejection in trying to learn about the new digital practices, such as how to use the learning platforms. Teachers T1, T10 and T16 shared that some parents intended to join the online lessons however teachers felt they were ‘at loss’ on how to use the new digital platforms; they didn’t know how to go about asking for the school support to participate in the new digital environment. Teachers were aware that the parents were not familiar with the social structures, therefore they could not access the information.

T1 understood these parents’ behaviour and felt that “they were completely in a different environment, they were not aware of what we were doing, they were not aware of the technology that could be used”. Additionally, teachers felt that during the pandemic parents had other things to do beside supporting their children in their learning. This was confirmed by parent P1 who during the pandemic was also a learning support assistant (LSA). Beside taking care of her child who was following the usual timetable throughout the day, P1 was also delivering online lessons to her student, switching between two computers, her child’s and that of her student.

This made teachers reflect on the different family situations, respect these differences and try to form partnership with the parents.

This was illustrated by T13 (222-235) who shared her experience when during the pandemic she became aware that a particular migrant mother needed someone to talk to about her child’s education. Even though she preferred to send her an email instead T13 empathised with the migrant parent different and difficult life situation and decided to communicate with this mother face-to-

face. She made choices according to the parent's needs and decided not to use digital technology and spend some time with her, even though she had a class to teach. T13 was sensitive to the parent's different life situations which required different approaches from her as teacher and to autonomously decide what was right at the moment. The teachers' dispositions changed from respecting the parents' different life circumstances to forming partnership with the parent.

4.5.4 The students' brokering role

At the micro level, another determinant which influenced the teachers' dispositions towards inclusive practices was the students' brokering role. Some teachers became aware and valued the students' digital abilities and considered these qualities as an opportunity to encourage them to act as brokers, to share information between the school and home.

The teachers' dispositions evolved to consider the students as brokers or mediators between their family and the school. Teachers T6 (221-231) and T8 (364-376) (396-397) realised that migrant students delivered the school messages well and informed their parents about what needed to be accomplished in class. T6, T8, T3 felt that the students were good mediators, that they could trust them to deliver the right message to their parents.

> T6: the students, the migrant students
> act as very good mediators
> when it comes to understanding me
> and then communicating with their parents

P5 stated that it was through her son that she managed to digitally connect with the teacher on the MS Teams because she didn't know how to use it. It was her son who asked his teacher her questions on the MS Teams.

Teachers T3,T6 and T8 felt that they could trust the students' intervention to enable digital connectivity. T8 emphasized that she should give clear explanation by checking the students' understanding which enabled a reciprocal interaction, where learning was bi-directional. In this process the teachers became aware of the students' different qualities, such as knowing a language which was not familiar to them.

T8 (364-376) shared an experience when the students were expected and managed to send a signed letter through the MS Teams. T8 was satisfied that the students understood well her instructions and brought the paper signed as requested. The teachers' awareness about the students' familiarity with technology, that they could deliver the messages well changed their dispositions to trust the students to make possible the communication with the parents.

The students' brokering role enabled the teachers to change their dispositions towards digital use, from teacher centred activities to student collaborative interactions that enabled

connections between the school and home. To enable digital connections between the school and home T17 (116-121) gave her students and their parents clear instructions on how to use the MS Teams. With these instructions, even though some students were alone at home, they quickly connected online. T17 felt that the hardest bit was at the beginning, when the students were still trying but then once the students managed to connect they continued with the lessons.

The teachers' dispositions towards the opportunities that could be achieved with the students' brokering role, brought with it a negotiation of responsibilities. For example, T3 (343-362), was aware that some parents could not understand neither English nor Maltese. T3 was resourceful to make use of whatever was available during the pandemic to connect with parents. She felt that since these students knew both languages, during the Parent's Day they could translate to their parents, act as interpreters even for their younger siblings.

Migrant students acted as brokers even when there was no Internet connection available. T3 shared an experience of a migrant student who always acted as a broker for her siblings at school, whose aim was to work hard and help her family who lost everything because of war. T3 was aware of the students' different life situations from those of the local students and empathised with the student's difficult life experiences, a hardworking migrant student, who deserved all the help she needed because she had been through a lot. T3 (371-383) cared for this student and knowing that she did not have the technology at home made sure that it was available for her. Through understanding the student's situation T3 acted to make the required changes and advocated for the migrant students' specific needs.

The student's role as broker was also recognised and valued by their parents. From the parents' point of view, it was almost the norm that their children acted as brokers. When P2 was asked whether she used the MS Teams, she answered "*ehe iva…it-tifla tghamel kollox*" which translates to "yes, my daughter does everything". P2 stated that she did use the MS Teams but then also stated that her daughter was the one who always connected digitally with the teacher. P2 felt that she was using the technology even though her daughter was actually doing all the communication. Therefore, P2 depended on her daughter to digitally connect with the teacher to exchange information. Even though the power dynamics between the mother and the daughter changed, P2 shared that she could rely on her daughter to communicate with the teacher. In some culture girls have a responsibility to take care of their siblings.

Additionally, T14 (222-227), realised that the students could show their parents how to use digital resources highlighting the students' brokering role within the family to encourage meaning making and participation. The students' brokering role enable not only their inclusion but also that of their parents. As T14 stated students were proud to assert that they helped their parents to use technology, "Miss I showed my mum how to use it". The diverse student's intervention enabled the

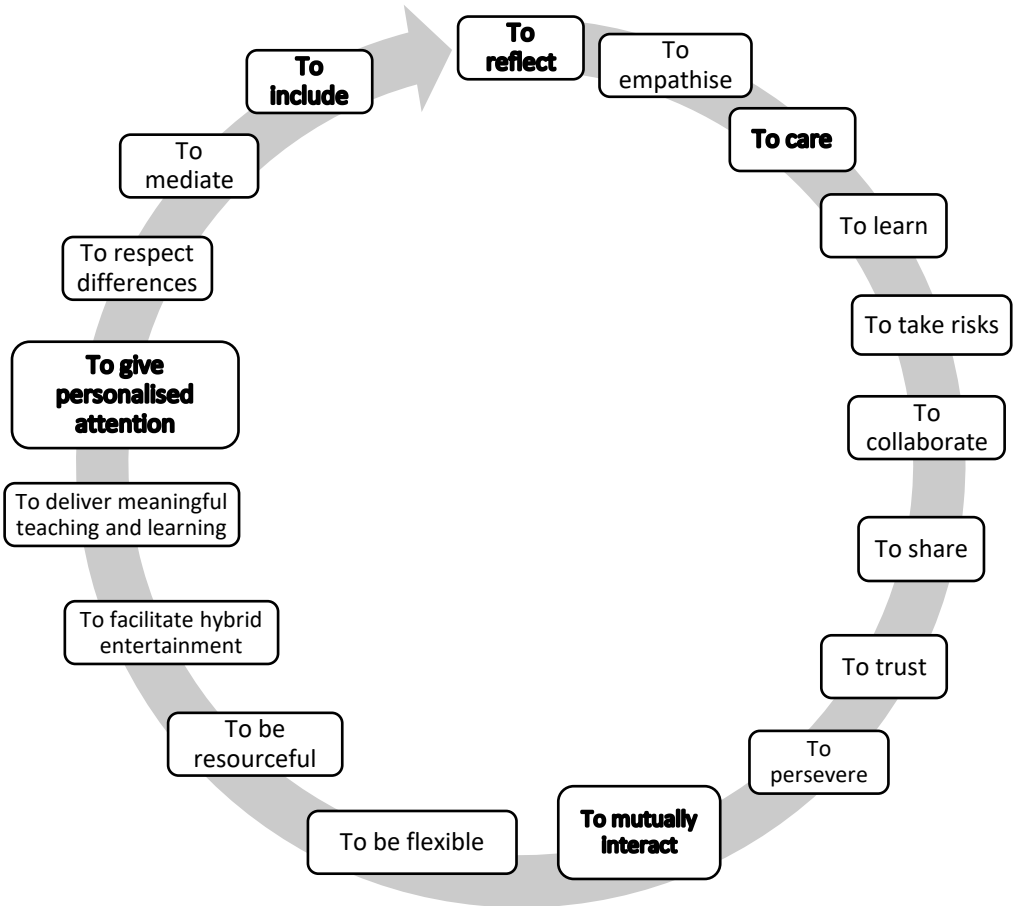
accommodation of the diverse students and their parents' involvement in the classroom, and actually in public space.

One can conclude that the metaphor of the educational ecosystem (Niemi, 2021) enabled us to see the various factors which influence the teachers' dispositions to facilitate digital equity and inclusion. These were illustrated in the determinants, the identified challenges and opportunities within the three systems' levels when the teachers recognised the differences in digital access, used digital technology for teaching and learning and practised inclusive practices for the integration of all students.

Figure 5 shows a summary of the identified teachers' dispositions and the overarching themes. The teachers' dispositions are illustrated in an evolving manner, as one disposition leads to the other towards the teachers' intention to facilitate digital equity and achieve inclusion in multicultural classroom. The development of the disposition is a spiral one, starting from reflection towards the students' integration, not coming to the same starting point but evolve higher with the encountered experiences, understanding and changes in teachers' beliefs.

Figure 5

The Teachers' Dispositions and the Overarching Themes



The teachers' dispositions, that is, their beliefs and actions were investigated within the opportunities and challenges encountered by them. Through reflection the teachers became aware of the students' differences in digital access and empathised with the students and their parents' social reality. By reflecting on the possibilities to continue teaching online, teachers developed a caring disposition to learn the new digital skills. This required from them dispositions to take risks, trust, share, collaborate and persevere with others. When teaching and learning with digital technology the teachers mutually interacted with the students, parents and other stakeholders and learnt about the others' views and took decisions together. The teachers' dispositions evolved to become flexible and resourceful in their practices as they delivered meaningful and fun learning activities. When facilitating inclusive practices teachers' dispositions evolved towards respecting more the students' differences, their different ways of doing things and ways of learning. They made use of mediating strategies to enable interactions and communication for the integration of all students and their parents.

In the discussion chapter I will interpret how the emerging trends from the findings are related to the teachers' dispositions in facilitating digital equity in multicultural classrooms.

Chapter 5. Discussion

In this chapter I will conclude by discussing the research questions, by considering the data as interpreted in Chapter 4. In this concluding chapter I share my interpretations of the participants' voices. I am aware that the teachers', parents' and students' daily encounters during the COVID-19 pandemic must have been more elaborate than depicted in this thesis. Additionally, the illustrated interpretations in this thesis are influenced by my experiences of a more than a decade working as a teacher in my native country and another decade as a migrant mother in the receiving country.

My interpretations are also affected by my interactions with literature, on the concepts of teachers' dispositions, digital equity and multiculturalism, and the framing of the teachers' dispositions within the educational ecosystem (Niemi, 2021) as manifested by the three system's levels: the macro, meso and micro levels.

The research questions that guided this study were:

1. Which are the opportunities that influenced Maltese teachers' dispositions to facilitate digital equity and inclusion?
2. Which are the challenges that influenced Maltese teachers' dispositions to facilitate digital equity and inclusion?
3. How are Maltese teachers' dispositions manifested in such contexts, when they recognise the students' differences in digital access?
4. How are Maltese teachers' dispositions manifested in such contexts, during the interactions when using digital technology?
5. How are Maltese teachers' dispositions manifested in such contexts, when they practise inclusive practices for the integration of diverse students and their parents?

These research questions had been substantially answered in Chapter 4, consequently in this chapter the answers to these questions will be discussed, and critically interpreted and evaluated, connecting findings to existing knowledge and generating new insights.

As explained in Chapter 3 and illustrated in Chapter 4, the data collected with the teachers, students and their parents from the narrative scenarios and the individual online interviews, was systematically analysed in the first phase to answer the first two research questions, the challenges and opportunities influencing the teachers' dispositions to facilitate digital equity in multicultural classrooms and the second phase to analyse the teachers' beliefs and actions, their dispositions:

1. to recognise differences in the students' digital access
2. to use digital technology for teaching and learning

3. to facilitate inclusive practices for the integration of all students

The metaphor of the educational ecosystem (Niemi, 2021) provided a lens to view the systemic issues influencing the teachers' dispositions, their beliefs and strategies that need change towards working for social justice in facilitating equitable digital practices and inclusion of all students in multicultural classrooms.

The findings in this investigation highlighted that at the macro level the teachers' dispositions were influenced by the changes in how teachers were teaching and how the students were learning with technology, and by the fact that the future of learning is an increasingly technological one. At the meso level the teachers' dispositions were influenced by the diverse parents' beliefs and expectations about education. While at the micro level the teachers' dispositions were influenced by the emerging culture in the classroom taking place through the interactions and by the challenge of having students joining mainstream education without the basic skills, such as reading and writing. These emerging trends indicate that transformations in teachers' competences to facilitate equitable digital practices and inclusion are required across the three levels of the educational system as illustrated hereunder.

5.1 The teachers' dispositions as influenced by these emerging trends

The five emerging trends influencing the teachers' dispositions, indicating the societal transformations that are taking place at the three levels of the education ecosystem are presented in the following sections.

1. Changes in how teachers teach and how students learn with digital technology.
2. Emerging technology-enhanced learning modalities.
3. The parents' beliefs and expectations about learning.
4. The time when diverse students joins mainstream education.
5. In response to the new culture developing in the classroom.

5.1.1 Teachers' dispositions as influenced by changes in how teachers teach and how students learn

The reliance on the use of digital technology to remain connected for teaching and learning during the COVID-19 pandemic influenced the teachers' dispositions towards how they were teaching and how their students were learning.

During the pandemic teachers reflected and held the pedagogical belief that learning must continue. Within this context teachers cared to change their practices to online teaching and learning

and during the process discovered new digital affordances (Berthelsen & Tannert, 2020). The teachers' change to online teaching and learning exposed post-migration population patterns of inequalities to digital access.

Some teachers recognised and empathised with the students' differences in digital access and learned about their real-life situation such as the students' availability of digital resources and the Internet connection both at home and at school. Differences in digital access also included the type of technology the students had at home. For example, the tablet which was provided by the school and could be taken at home was very limited in its functions. Further some students did not have a computer or a laptop at home limiting their access to the information on the Internet.

The availability of digital resources as illustrated by the participants in this investigation indicated that they were not sufficient to support the needs of the students with a migrant background. In these findings some students lacked a good quality one-to-one digital device or high-speed Internet connection, while others lacked the possibility to take the digital device at home. These situations influenced the students' learning opportunities with digital technology as was also illustrated in literature (Li, Zheng & Chiang, 2021; Zielezinski & Darling-Hammond, 2018) which stated that quality learning experiences with technology depends on quality resources both for students and teachers. These findings also confirm Niemi's (2021) findings where the provision of quality digital resources available at school influence the teachers' work and depends on the country's political aims.

As teachers were open to learn about the students' and their families' social reality, for example about those families who were living in the open centres and lacked the Internet connection, teachers developed dispositions to make changes and accommodate their needs (Modood, 2013). This implies that some teachers were changing their beliefs with regards to accommodating the diverse students' needs. It is encouraging to compare these findings with those of Bartolo who in 2008 suggested that teachers ought to reflect and challenge their assumptions about the students and change their practices to consider student-centred approaches.

Teachers cared for the students by lifting the obstacles to their participation (Boucher & Maclure, 2018) and provided printed educational material when there was no Internet connection, thus giving the students more power, more time and space to use technology, balancing the power relations in how resources were used for learning (Banks & Banks, 1995).

The COVID-19 pandemic provided an opportunity for those teachers who were open to learn and practise the new digital and the 21st century skills including critical thinking, communication, collaboration and creative thinking (OECD, 2018). Already in 2015, Maltese teachers were encouraged to change their traditional teaching practices and make use of digital technology (MEDE, 2015). These findings support the requirements of the Maltese teachers' code of ethics which states

that teachers must maintain trust in the profession and keep their professional knowledge and practice up to date (LN 414/2012). The findings in this study illustrated that during the COVID-19 pandemic teachers felt comfortable attending the online courses because they were short and feasible and they could continue to self-learn after the sessions. This implies that the COVID-19 circumstances influenced the teachers' depositions to learn the required digital skills and consequently update their professional knowledge.

The teachers' dispositions to learn about the new digital practices and about the students changed their ways of using digital technology for teaching and learning. Teachers changed their digital practices from drilling and memorising (Bos, 2007; Jara et al., 2015; Lawless, 2016; Zielezinski & Darling-Hammond, 2018) to integrating the use of digital technology during the lessons and to connect with the students and their parents. Through school support teachers risked and tried to use digital technologies in new ways. This finding is in line with that of Niemi and collegeaues (2013) who stated that when the teachers were allowed to take risks with new digital resources they created a learning community and empowered the students in their learning. Another important finding was that as teachers were learning and practising the new digital skills, they were also learning about the parents' beliefs and expectations about learning with technology.

They developed dispositions to collaborate, share and trust each other and persevered in developing a can-do attitude in class. This contributed towards influencing the teachers' disposition to mutually interact with their colleagues, the students and their parents, a reciprocal two-way dialogue (Junge, 2008). During the interactions the teachers, students and their parents discussed and shared ideas and values and learnt about the expectations of the other. This is in line with Zapata-Barrero (2017) who emphasised the two-way interactions, what he called *intercultural dialogue*, the kind of interactions were ideas, values and ways of doing are reciprocated. Teachers became aware of the difference in the diverse students' population, the cultural diversities, language and skills and tried to accommodate the views of both the majority and the minority (Bloemraad & Wright, 2014; Modood, 2013). The accommodation of differences was also an opportunity for growth within the educational ecosystem (Niemi, 2021).

When using digital technology for teaching and learning teachers changed their beliefs to more positive ones (Cuban, 1998; Howard, 1999; Nieto, 2005; Smylie, 1999). The changes in ways of teaching and learning with technology influenced the teachers' previous epistemological beliefs, their racist beliefs handed down through history comprising of low aspirations towards diverse students. Sometimes teachers tried to assimilate the diverse students by trying to "get them accustomed to our ways", but in the process they realised that to be able to teach diverse students they needed to view them from their *cultural filters* (Gay, 2013). Additionally, the findings indicated that teachers believed that through digital affordances they could apply culturally responsive

teaching (Gay, 2013) and make more diversified learning possibilities according to the students' needs.

The present findings indicated that within heterogeneous schools, the use of digital technology for teaching and learning influenced the teachers' dispositions to become flexible and resourceful. Teachers critically reflected on the curriculum content and evaluation methods and made adaptations according to the students' needs and abilities. When using digital technology for teaching and learning teachers became flexible and resourceful to access curriculum related resources from diverse cultures around the world and found common themes across different cultures or religions. In Gay's (2002) terms teachers were converting the cultural knowledge in the curriculum. For example, when selecting the theme *Music around the world*, the teacher and the students came across the differences and similarities in the performed music and the musical instruments used. This finding indicated that teachers were acting as learners within the educational ecosystem and continuously developing their profession according to the students' needs and the demands of society (Niemi, 2021). The current findings add to the growing body of literature on the student-centred approaches to teaching and learning with digital technology (Chai, Chin, Koh & Tan, 2013; Liu, Lin, Zhang & Zheng, 2017; Totter, Stütz & Grote, 2006; Zielezinski & Darling-Hammond, 2018).

The teachers' flexible dispositions evolved to more personalised interactions and changed their pedagogical beliefs from considering one size fits all class approaches to more personalised student-centred strategies. Some teachers felt that with digital affordances they could actively regulate and monitor one's learning on his or her previous knowledge acquisition (Niemi, 2021a; Zielezinski & Darling-Hammond, 2018).

Teachers could adapt the students' work according to their abilities and needs. As a result, when using digital technology, the teachers' dispositions to deliver personalised student-centred learning experiences, changed their pedagogical roles to scaffold, facilitate and coach the students' learning. The affordances of digital technology enabled the teacher to scaffold the activity into smaller steps and to facilitate the learning experience through adaptations. Some teachers coached their students through personal feedback thus enabling them to develop student-directed learning skills and to learn at their own pace.

The findings illustrated that teachers developed the lessons by considering the students' background as the starting point of their lessons. This is in line with Gay (2002) who suggested adopting *cultural scaffolding* by considering the students' background as the starting point to develop their learning. Further through digital applications teachers coached their students by praising their effort, sometimes using a reward system when students made mistakes and then they are encouraged to try again, to continue learning (Bandura, 1986; Niemi, 2021a; Zielezinski &

Darling-Hammond 2018). The findings also indicated that during the COVID-19 pandemic, some teachers developed personalised reflections on their students' circumstances. Teachers became aware of their taken for granted beliefs, a prerequisite in multicultural space which was also suggested by Gay (2014) where nonmainstream meaning making and ways of doing things are presented positively during teaching and learning.

These roles further enforced the teachers' dispositions to personalise the students' learning to better understand the students and reach their educational aims. In the process teachers developed a new learning paradigm which started from the students' life experiences and needs (Zhao, 2019). This approach enabled quality learning since with the use of digital technology the teacher could give agency to the student to develop one's own learning. The students could reflect on the process of learning by incorporating one's values, opinions and life experiences (Kumagai & Lypson, 2009). Throughout the process, teachers used the social media to interact with the parents and better support the students.

The present study provides an additional contribution in that teachers in this study facilitated fun teaching and learning strategies to make the lessons more meaningful for the students. Both in the narrative scenarios and during the interviews most teachers held the epistemological belief that the use of technology was a fun way to teach and learn, and as a consequence they used it more. This was considered an opportunity to use digital tools to make the interactions also more engaging for the students. The teachers' disposition to provide fun teaching and learning experiences for the students encouraged them to participate even more (Ioannou & Constantinou, 2018) thus making the interactions more valuable within an educational ecosystem (Niemi, 2012).

Additionally, the findings illustrated that parallel to the teachers' hybrid entertaining disposition teachers became aware of the multimodal possibilities of engaging with digital technology, through text, pictures, auditory activities and gestures. Through the visual and auditory affordances of using digital technology teachers developed dispositions to make learning more meaningful and personalised. This enabled better understanding and engagement for all students and influenced the teachers' pedagogical beliefs in re-creating the public space by adapting the lessons to integrate the marginalised students (Modood, 2013). As Zielezinski and Darling-Hammond (2018) stated when using digital technology students could relate to their own unique experiences, they could think about their experiences in their native countries in relation to the receiving one, and find sameness and differences (Modood, 2013). The visual and audio affordances of digital technology enabled the students to share their previous life experiences from their native country and their peers could understand them better even when there was a language barrier.

During the COVID-19 pandemic teachers were experiencing the challenge to continue learning and living together. The digital affordances enabled this possibility. Teachers realised that

information was easily accessible online and changed their practices from the “banking way of learning” to “problem solving” (Freire, 1970). That is rather than giving the students the information, which was already available online, teachers asked the students to look for the information and then discuss it together as a class using Powerpoint presentations.

During the school assemblies the discussed topics together while the teachers modelled the reflective behaviour with the students and tried to work on improvements together (Niemi & Niu, 2021). This changed the interactions towards more inclusive practices, where before students were competing and working alone (Sultana, 1997b) they were now actively collaborating and sharing their ideas and values.

This practise contributed towards discovering each student’s authentic self (Taylor, (1992). Some students who spoke a different language or had different life experiences may have found the curriculum irrelevant and were passive in class. The digital affordances (Berthelsen & Tannert, 2020) influenced the teachers’ dispositions to be flexible and adapt the lessons to different languages, beliefs and life experiences and encourage the students to share their life experiences and co-presences during the class activities (Modood, 2013). Every student could personally search for the information online, use one’s own language and interests, thus also eliminating the racist ideologies usually found in textbooks (Ideland, 2018).

The use of digital technology changed Maltese teachers’ teaching strategies however mostly they were still using British digital resources. Thus, the colonial influences were still lingering in their teaching. The findings illustrate that the teachers challenged the ethnocentric ways of teaching and learning when together with the students they looked for information about different cultures to prepare Powerpoint presentations. Using these inclusive practices, teachers challenged their positional superiority (Mayo, 2017) since they were empowering the students to share their experiences and also learn with the students. In multicultural classrooms diverse students could enrich the learning experience by sharing their views and knowledge and by respecting each other’s views find solutions to the problems that arose in class (Modood, 2013).

The teachers’ pedagogical beliefs changed from considering one size fits all to more meaningful, personalised and fun student-centred strategies. Thus, teachers developed a new learning paradigm that starts from the students’ unique life experiences and needs. They empowered the students to share their experiences when facilitating inclusive practices such as when using Powerpoint presentations. Sometimes teachers tried to assimilate the diverse students in trying to “get them accustomed to our ways”, but in the process they developed dispositions to respect differences. Teachers realised that to reconcile differences they needed to see these differences from their *cultural filters* (Gay, 2013).

When facilitating inclusive practices, the parents were also included in the school activities. This enabled the parents to support their children and form partnerships with the teachers. Maltese teachers believed that the parents were the ones who knew their children best and parents acted as mediators between the teacher and the student.

Additionally, sometimes students acted as mediators between the school and home. During their initial days at school some newly arrived students had more social contact than their parents and through their brokering role influenced the teachers' disposition to include both the students and their parents within the education system.

5.1.2 The formation of teachers' dispositions as influenced by the future of learning which is increasingly technological.

The findings in this research indicate that the teachers' dispositions toward facilitating equitable digital practices in multicultural classrooms were influenced by Emerging learning modalities which is increasingly technological. The teachers in this study made a conscious effort to connect with the students during the COVID-19 pandemic and continue teaching through digital affordances. This is in line with Niemi (2021) who stated that within an educational ecosystem the teachers' work is based on the conscious human commitment (Niemi, 2021) and digital affordances (Berthelsen & Tannert, 2020) enable the actualisation of this commitment. In reflecting about the differences in digital access teachers became aware that nowadays knowing how to use digital technology is considered a basic need. They believed that the school is the learning community were digital competence is taught and learnt.

The findings illustrated that teachers empathised with those students who did not have the technology at home and with the other students who although had advanced technology at home, still they did not know how to use it for learning.

From this awareness teachers developed dispositions to care for the students' continuation of learning required for their future participation in society. They held the pedagogical belief that knowing how to use digital technology was important for the students' future. These pedagogical beliefs made teachers develop dispositions to learn about the students' digital activities and to teach the students new digital skills. Consequently, both the teachers and the students were learning from each other.

The findings illustrated that a result of these mutual interactions, teachers developed dispositions to not only learn but also to teach the new digital skills. Niemi and colleagues (2013) had also found that the use of digital technology enabled a sense of collegiality.

Teachers believed that the time during the pandemic was ideal to prepare the students with basic digital skills such as how to insert a password or how to write an email. The teachers' dispositions evolved from self-learning to mutually interacting with others to teach and learn the new digital applications. The COVID-19 pandemic provided an authentic opportunity for the teachers to experiment with the new digital skills and develop oneself professionally. The teachers' beliefs and actions became reformative since they were changing the teaching and learning interactions. These concurrent learning and teaching experiences provided enriching learning opportunities within the educational ecosystem since all the members were sharing and learning the new digital skills. Through the school support teachers developed a sense of collegiality with their colleagues, the students and their parents when learning and sharing the new digital skills. Thus, access to new digital skills was not only delivered vertically from the authorities but also horizontally from the other teachers, students and their parents.

The findings illustrated what Niemi (2021) had stated previously that this sense of collegiality influenced the teachers' dispositions which shifted from class control to collaborating and trusting the parents more. Further through this collaboration both the teachers and the parents learnt quickly how to use the online platforms and other digital tools. This is in line with literature that states that when teachers are permitted to take risks and experiment with digital affordances they create a learning environment within the school where everyone is empowered to continue learning (Niemi et al., 2013). During the interactions, teachers became aware of the parents' beliefs and expectations from the school and of the students' diversity. This influenced the teachers' dispositions to mutually interact with others and persevere to use digital technology for teaching and learning.

The findings illustrated that as in educational ecosystem, the diversity within heterogeneous schools was considered a resource. Teachers valued the students' differences by personalising the teaching and learning experiences, by preparing Powerpoint presentations, downloading relevant apps, stories and videos and using them during the class discussions. In accommodating both the majority's and minority's experiences teachers developed a meaningful culture which mattered to the students and their families (Modood, 2013).

Through the social media teachers shared the students' work with the parents, while the students had the opportunity to interact with other cultures and receive feedback from their community (Zielezinski & Darling-Hammond, 2018; Price-Dennis et al., 2015). Teachers developed personalised dispositions by recognising the students' unique abilities and accommodating their unique needs in a fun and personalised manner.

In facilitating inclusive practices such as organising the school assembly, teachers developed dispositions of respect towards differences. This was possible through digital affordances that enabled learning and living together during the COVID-19 pandemic.

During the inclusive practices the teacher was considered a role model by both the students and the parents, in modelling justice and care (Niemi, 2021), to reflect on critical issues with the students that can lead to positive change towards inclusion. For example, in the findings this was illustrated when the local students followed their teacher and made an extra effort to speak the language which the newly arrived students could understand. As a class they were sharing the public space and accommodating the needs of both the minority and the majority (Bloemraad & Wright, 2014; Modood, 2013). Together they reached the inclusive aim that "differences are part of life", that diversity should be accepted and learn how to live together (Winter, 2015).

In appreciating the diversity within the school, teachers held the pedagogical beliefs that to integrate all students and their parents they need to show love, care and control. On the same line Nieto (2017) had stated that to re-imagine multicultural education teachers must show love and care to the students. The teachers in this study took a step back to understand one's biases and assumptions about others. It was a space for dialogue between the teachers and the students and their parents, a third space (Bhabha, 1988) where during the process one tries to understand the other and develops respect towards differences. This was an understanding which developed over time and the use of digital technology was the tool to enabled this understanding, to mediate different opinions and ideas through the use of technology.

The trend that the future of learning is increasingly technological influenced the teachers' dispositions to use digital technology as a tool, to mediate these interactions. During these interactions a disposition of respect developed. Thus, parents were encouraged to form partnerships with the school and support their children in sharing their life experiences. Digital technology was the tool to mediate these interactions. This was also illustrated in the students' brokering role between the school and home that enabled both the students' and parents' inclusion and participation within the educational system.

5.1.3 Teachers' dispositions in relation to the diverse parents' beliefs and expectations about education

When recognising differences in digital access the teachers' dispositions were influenced by the parents' different beliefs and expectations from the school. Teachers became aware of the parents' diverse social realities, some worked long hours leaving their children alone, others lived parallel lives, while others did not speak the local language and depended on their children or the social media to interact with others. They empathised with the parent's life experiences, their home environment where some migrant parents worked long hours sometimes leaving their children alone

at home. Other parents lived parallel lives, while others did not speak the local language and depended on the social media to interact with others.

Teachers realised that some parents remained isolated in their ethnic enclaves and did not try to learn the language (Bloemraad & Wright, 2012). This made the teachers aware that the information was not reaching across borders and raised questions as to who is legitimate for the access of information within the system? Who is legitimate to participate in the decisions taken by the school? The fact that some parents did not sign the consent forms and some students did not join the online lessons shows that parents did not feel that their voice mattered. They lacked the sense of legitimacy to consider themselves as partners in their children's continuation of learning (Niemi, 2021).

This indicates that teachers need to develop dispositions to reflect and consider the digital access of the whole family and not only that of the students. As was illustrated in literature when making changes within a societal group, like the family, the whole group or family should be targeted (Modood, 2013; Kumagai & Lypson, 2009). Some parents held different views on the potential of using digital technology for their children's educational achievement as was also illustrated in literature (Tupou & Loveridge, 2019). This situation is the result that in some cultures the male figure is considered more knowledgeable on how to use technology (Yuen et al., 2017). In this study, in some cultures the male students were expected to decide for themselves whether they should do their homework or not. The results were the same as in literature where migrant girls with migrant background were assigned house work including taking care of their siblings and cleaning the house (Palitza et al., 2007), leaving them with less time to do their homework. These differences in the parents' beliefs and expectations influenced the teachers' dispositions which evolved from empathising with their situation to caring about the students and to learn about their family social reality.

Additionally, the lack of interactions between the school and home influenced the teachers' dispositions to empathise with the parents who were not aware of certain digital practices. For example, they could still join the MS Teams through their mobile phones even if they did not have access to a computer.

Through the school support services teachers developed dispositions to share with the parents the educational expectations of the new country. As Crozier and Davies (2007) also had found some parents are not 'difficult' but they are not familiar with the social structures. The findings in this study agree with the findings of Calleja Ragonesi & Martinelli (2013) that some parents still depended on their children to connect with the school.

In collaborating with the parents, teachers also became aware of the parents' differences in digital use and competence. When teachers met parents, who lacked the digital competence, they shared information on how to use the new digital resources.

Through the teachers' mutual interactions teachers were open to learn about the parents' digital preferences. During the process teachers became aware that in some cultures, women did not use technology, as a consequence they were not connected. An educational ecosystem functions well when everyone is connected and information is flowing between the various actors (Niemi, 2021). The parents' lack of connectivity could hinder their participation. Through these interactions, teachers became flexible and resourceful to use the social media as a means to instruct the parents on how to use the new apps and the school platforms.

When using digital technology for teaching and learning teachers tried to make the interactions meaningful by considering the parents' digital skills, their preferences and the available technology by facilitating personalised parent centred approaches. They realised that there was no "one size fits all" way to reach all the parents and their dispositions evolved to adopt parent centred personalised dispositions. Teachers personally contacted the parents by phone, by sending written notes or on the social media to provide step by step instructions on how to use the new platforms.

The findings indicated that teachers became aware that some mothers tended to use the mobile phones more rather than a computer or a laptop and were more familiar with the use of social media (Katz, 2014; Shin & Seger, 2016). The teachers' epistemic beliefs changed to realising that some parents acquire knowledge in a different way. Aware of the parents' different digital preferences and that there was no "one size fits all" way to reach all the parents, influenced the teachers' dispositions to become flexible and resourceful. They used the social media even when they held the pedagogical belief that it was not professional to use it (Harju & Niemi, 2018). This approach enabled access to information to more parents. By considering the parents' digital preferences teachers created an inclusive public space (Modood, 2007a). The use of digital technology, especially social media, enabled both the parents and the teachers to mutually interact.

When facilitating inclusive practices, the teachers' dispositions evolved to respect and accommodate the parents' differences in digital access and use. The digital affordances enabled the parents to participate in their children's learning experiences. The results of this study showed that teachers believed that the parents were the ones who had the closest relationship with their children and knew them best. As a result, teachers developed dispositions to 'use' the parents as mediators and formed partnership with them. The partnership enabled interactions between the school and home. The parents' engagement was indicated in the viewers response on the school's Facebook page, an inclusive opportunity. From personalised dispositions teachers' developed dispositions to mediate the interactions between the school and home. Aware of the parents' differences in

languages and digital competence, the headteacher acted as a mediator and posted the students' work on the school's Facebook page. Sometimes the parents acted as mediators between the teachers and the students.

Through the digital affordances teachers also developed dispositions to encourage the students to act as mediators between the school and home with the use of digital technology. The students' familiarity with digital technology gave them agency within their families and their communities to make connections with the new world. The results of this study support the idea that through the students' brokering role the integration of both the students and their families is possible (Fuller et al., 2015; Katz, 2014).

5.1.4 Teachers' dispositions when students join mainstream education

Another emerging trend influencing the teachers' dispositions was that some students were joining mainstream education without knowing the languages of instruction. Some students even lacked the basic skills such as reading and writing; the skills needed to use digital technology to exploit the digital affordances and make connections.

Patterns of inequality and exclusion emerged when teachers realised that some students were joining mainstream education without knowing the language of instruction. The findings illustrated that some teachers still held the pedagogical belief that it was a challenging situation to teach in such a superdiverse environment (Sultana, Gellel & Caruana, 2019). They believed that newly arrived students should attend the Language Hub or special classes before joining the mainstream class to learn the languages of instruction, the Maltese and English languages. However, in literature it was highlighted that introductory classes hindered the students from feeling included (Torbjørnsen Hilt, 2017). An implication of this is the possibility that this was the reason why students coming from migrant background tried to skip attending the Language Hub. Some teachers empathised with the students' situation and believed that with the help of technology these students could still learn. This awareness helped teachers navigate their relationships with the students and support them during the challenges they encountered. Teachers felt responsible for the diverse students' learning and were open to develop their digital skills. They were open to learn the new digital skills and how to use the new digital resources.

When students joined mainstream education, teachers became aware that some students were more familiar with digital technology than they were. The students' familiarity with technology encouraged the teachers to mutually interact and develop dispositions to learn with and from the students. Some teachers risked using new digital tools such as Google Translate and the speech recognition apps to translate the language for the students. It was also an opportunity to learn about

the students' diversity and through mutual interactions the local students were introduced to new languages. In some families, parents depended on their children to use technology (Fuller et al., 2015; Katz, 2014). As noted, this may have been the result of different cultural beliefs and expectations (Palitza et al., 2007; Tupou & Loveridge, 2019; Yuen et al., 2017) or parents living parallel lives (Bloemraad & Wright, 2012).

On the other hand, the findings also illustrated that even when the students had advanced technology at home they were still not familiar with the technology that was being used at school. Teachers believed that the technology that was being used at school may have been boring for these students. This indicated that not all families could afford to buy the latest technology for their children. Additionally, teachers became aware about some parents' beliefs about the use of technology. Not all families considered the use of digital technologies as important for their children's learning. Additionally, teachers believed that not all the technology available in the market helped the students to develop their learning experiences. Therefore, having access to a type of technology like digital games did not indicate that the student knew how to use the technology for learning.

This trend influenced some teachers' dispositions to use technology less. Teachers believed that it was a waste of time to daily spend considerable amount of time explaining to the students how to use the tablet. They felt that the tablet should be introduced during the early years and not in year 4. On the other hand, some teachers felt that they were competing with the advanced technology that the students had at home.

The students' different life experiences such as those who were coming from war torn countries or from nomadic families who were constantly travelling to find employment, influenced the teachers' dispositions. Through the possibilities of digital affordances teachers became flexible and divided the school time and resources with these students. Digital affordances enabled a holistic learning experience for these student (Reinikka, Niemi, & Tulivuori, 2018).

Teachers became flexible to adapt one's practices to more personalised use of digital technology. They used digital technology as a tool to share experiences and translate the languages. Thus, this made it also possible for the students to use their native language (Zielezinski & Darling-Hammond, 2018). The affordances of digital technology encouraged all students to participate even when there was not a common language (Emert, 2014; Niemi, Niu, Vivitsou, & Li, 2018). Teachers became flexible and resourceful in using digital technology to adapt the lessons according to the students' understanding. They adopted more meaningful, fun and personalised student-centred strategies by downloading and translating the teaching and learning material and teaching the predigital skills like reading and writing, concurrently with the digital skills.

The findings also illustrated that with the digital affordances, teachers became flexible and switched between the Maltese and English languages. Some teachers realised that the English language was being used even more in class, since it was more commonly known among newly arrived students. However not everyone knew the English language either and some lessons were being delivered in Maltese. To accommodate the students' diverse learning needs in heterogeneous classes teachers facilitated personalised strategies by downloading and translating the teaching and learning material to accommodate both the students' different abilities and languages.

Teachers developed personalised dispositions and started adopting more student-centred strategies in teaching the predigital skills like reading and writing, concurrently with the digital skills and permitting the students to learn at one's own pace (Zielezinski & Darling-Hammond, 2018). Prior studies have also noted that the most influencing factor when teaching with digital technology was the teachers' beliefs towards student-centred activities (Chai et al., 2013; Liu et al., 2017; Totter et al., 2006). Teachers accommodated the needs of those students who lacked the technology at home by allocating special time during the school day and allowing them to use the technology available at school.

When facilitating inclusive practices, teachers respected the students' different languages and abilities by appreciating the students already acquired digital skills and included them during the school activities. The parents were also asked to participate during the school assemblies or during circle time. The findings also illustrated how teachers used digital tools to mediate the messages with the students and their parents and enable them to participate in the school's activities.

5.1.5 Teachers' dispositions in response to the new culture emerging in the classroom

During this investigation another trend which influenced the teachers' dispositions was the new culture that was developing in the classroom. Due to the insecurities present during the COVID-19 pandemic and the students' different family backgrounds teachers tried to provide a safe learning environment through digital access. They reflected on the students' realities and empathised with their situations developing caring dispositions for their wellbeing. Teachers held the pedagogical belief that the class functions as a family and cared for those students who were going through different and difficult life experiences. With the digital affordances they felt responsible to remain connected and made the students feel safe. They held the pedagogical belief that they should give the students a better life experience than the one they had at home. The findings illustrated that through the teachers' dispositions to mutually interact, the students and the parents were also supporting each other. When encouraging and supporting each other they developed what Kumagai and Lypson (2009) called *empathic connections*. Through this process teachers became aware that

the students were more accepting of each other's differences. They felt that the parents were the ones who instilled in their children the belief of "us and them", the human tendency to discriminate between people (Kymlicka, 1995). This was a clear manifestation of the parents' assimilative beliefs towards diversity, where differences were avoided and the minorities were expected to accept the values and ideas of the dominant group (Modood, 2013).

Teachers risked making changes by learning how to use new digital applications and make the students feel safe. Students were encouraged to ask questions even though the teachers did not know all the answers. Some teachers held the epistemological belief that having access to the Internet these questions could be answered. From risk taking teachers developed dispositions to collaborate with the students and their parents and encouraged them to share their life experiences, values and religions. Within a trusting environment the students became more curious about the new ways of living. Teachers encouraged the students to think critically, share their ideas and ask questions.

When using digital technology for teaching and learning teachers were flexible and resourceful to value and apply both the students' positive and negative differences (Modood, 2013) and used these differences as resources. Some teachers were also flexible to prepare the protocols for participation, by structuring and regulating the lessons so that all the students could participate.

Additionally, the findings also illustrated that during collaborative inquiry teachers prepared the *protocols for participation* (Gay, 2002) by structuring and regulating the lessons, thus making it possible for all the students to participate (Dillenbourg, 2002; Gijlers et al., 2010; Janssen et al., 2011; Schmitt & Weinberger, 2018).

Teachers realised that the language was not the only difference, there were other differences such as the students' meaning making, epistemologies, and ways of doing things. From the interactions, teachers became aware of the students' uniqueness and changed their pedagogical beliefs to believing that the students' differences are an opportunity for learning.

The possibilities of the digital affordances influenced the teachers' dispositions to more personalised and meaningful interactions when they made culturally relevant adaptations, for example when using the online translations and the online reading books. Teachers' dispositions evolved from meaningful and fun to personalised, when starting from what the students already knew and build pedagogical bridges by using visuals to explain the content of the curriculum, thus providing a more relevant educational experience (Gay, 2002). Consequently, when applying culturally relevant teaching, diverse students replaced the pathological and deficient beliefs with positive ones (Acosta & Denham, 2017; Gay, 2013; Price-Dennis et al., 2015; Reich, 2019).

Teachers developed dispositions to personalise the students' teaching and learning experiences when they made culturally relevant adaptations with digital resources (Van Brie,

Darmody & Kerzil, 2016), when using apps such as Google translate, Kahoot, online stories and the reading app Nessy. On the same line, studies have shown the importance behind learning about one's inheritance. Van Gelderen and Guthadjaka (2017) developed the students' community website as a means of interaction and learning.

One of the more significant findings from this study was that teachers realised that students with migrant backgrounds enjoyed learning by discovery. This was also indicated by Zielezinski & Darling-Hammond (2018). Data from both the narrative scenarios and the individual interviews indicated that digital affordances enabled the possibility to make teaching and learning more inquisitive.

The students' preference to learn by discovery influenced the teachers' dispositions to be flexible and critically reflect with the students and create new knowledge. The affordances of digital technology supported this way of learning since the students were engaged in inquiry activities which encouraged more interactions and discovery (Price-Dennis et al., 2015). During the process of interacting teachers recognised and valued the students' unique epistemologies and life experiences, past experiences, and co-presences. It enabled the students to develop their past and present personal connections and helped them aspire for the future.

The students' preferences to learn by discovery influenced the teachers' dispositions to critically reflect and solve problems with the students on the new knowledge emerging in class and prepare them for complex future challenges. They tried to find out about the students' unique strengths, past experiences and needs. Additionally, the use of digital technology enabled the discovery of other cultures, ideas and values since through the Internet one could easily access the information and translate it.

The teachers' respect for difference encouraged further interactions and understanding of diverse cultures (Adair, 2015). Through the school ethos diversity was promoted as part of the school culture and the school environment was perceived by the students as belonging to everyone.

The student's unique qualities were considered as an opportunity for learning. This belief was being projected by the school ethos and influenced the teachers' dispositions to respect the students' differences. Findings illustrated that this epistemic belief was also being projected at the meso level by the school ethos. The school celebrated the students' diversity by showing interest in their different ways of doing things and gave them an active role in the school for example during the school assemblies. Teachers dispositions towards respect for differences were illustrated not only by putting up a flag, a safe symbol related to cultural diversity (Gay, 2013) but also in encouraging the students to share their different and difficult life experiences, values and religions.

The findings in this study indicated that when facilitating inclusive practices such as when sharing their life experiences during circle time or the school assemblies, teachers became aware

that the students were more accepting of each other's differences. Through digital affordances, teachers made use of these differences to make changes where and when needed. Digital affordance was used as a tool to mediate meaning and the new different experiences influenced the teachers and the students to develop new and better ways of living together such as when deciding to have a weekly meat free day. Thus, becoming aware of environmental issues and the importance of sustainability.

The relevance of these findings is that during these interactions, students experienced *cognitive disequilibrium* and became more curious and asked more questions. Some teachers believed that students should ask questions and not to remain with a 'closed mentality' reminiscent of the stagnant collective memory. Within an ecosystem recognising the diversity of its members and allowing interactions is healthy because one's curiosity and inquisitiveness to learning are enhanced, thus ensuring discovery of new knowledge (Niemi, 2021). This trend influenced the teachers' dispositions to take risks and encourage the students to ask them question even though they did not know all the answers to the students' questions. The digital affordances encouraged the students to interact more and through discussion developed new meanings, new understandings and a new culture. Teachers held the epistemological belief that having access to the Internet, these questions could be answered.

The study has shown that within a diverse environment, teachers became aware that the use of digital technology encouraged connections between each student's personal experiences and the rest of the class. Consequently, teachers realised that the use of digital technology was bringing all the students together. Teachers enjoyed the inclusive effect that diversity brought with it when using digital technology. The teachers' awareness of the sense of unity that was projected when using digital technology evolved to more inclusive dispositions. The sense of togetherness was felt through the affordances of digital technology which made it possible for the teachers to clearly deliver the message of acceptance during the online presentations. Teachers felt that even though the students were not physically working together in the same room, the video depicted the unity that existed within the classroom, depicting each student as both different and unique. In multicultural classrooms the achieved sense of unity enabled dialogue, interactions between the teachers and the students with different languages and abilities.

5.2 Integration of complex concepts into cohesive theoretical frameworks or models

Table 19 illustrates the cohesive theoretical framework integrating both the identified challenges and opportunities encountered by the teachers during the pandemic together with their dispositions within this context to facilitate equitable digital practices.

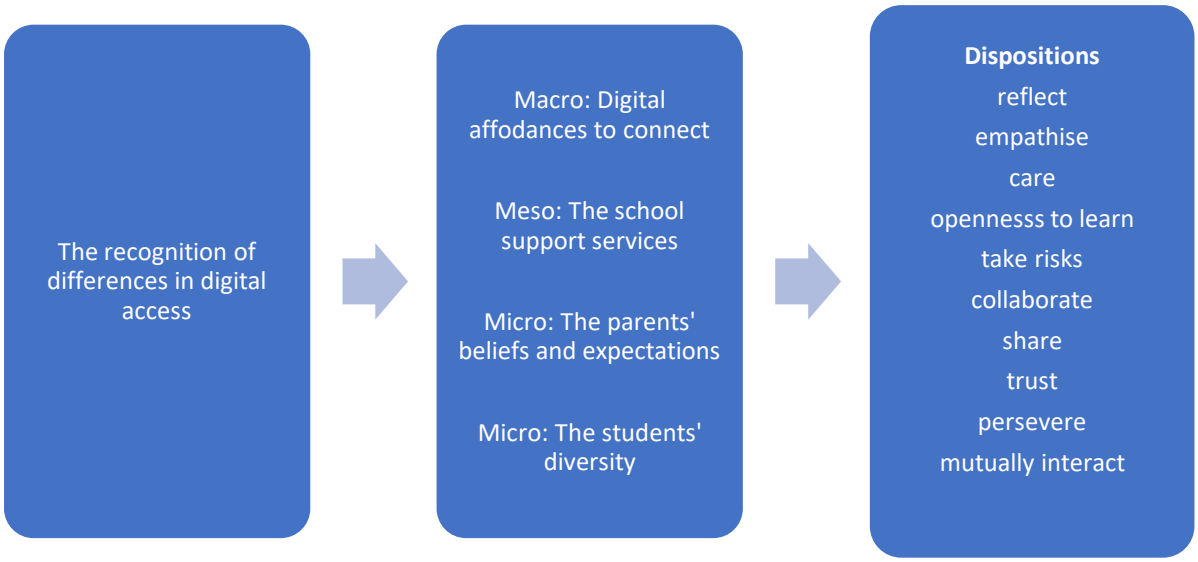
Table 19

The Advanced Synthesis of Ideas

<table>
<tr><td rowspan="2">System's levels</td><td>Multicultural classroom</td><td colspan="2">Recognition of differences</td><td colspan="2">Teaching & learning</td><td colspan="2">Integration</td></tr>
<tr><td></td><td colspan="2">In digital access</td><td colspan="2">When using digital technology</td><td colspan="2">With inclusive practices</td></tr>
<tr><td></td><td>Context</td><td colspan="4">Digital equity</td><td></td><td></td></tr>
<tr><td>Macro</td><td>Digital affordances</td><td>Connections</td><td rowspan="4">Reflect
Empathise
Care
Openness to learn
Take risks
Share
Trust
Collaborate
Persevere
Mutually interact</td><td>Possibilities</td><td rowspan="4">Flexible
Resourceful
Fun
Meaningful
Personalised</td><td>Learn & Live together</td><td rowspan="4">Respect
Mediate
Include</td></tr>
<tr><td>Meso</td><td>The school</td><td>Support</td><td>Heterogeneity</td><td>Contributions</td></tr>
<tr><td>Micro</td><td>The parents</td><td>Beliefs & expectations</td><td>Social Media</td><td>Partnership</td></tr>
<tr><td>Micro</td><td>The students</td><td>Diversity</td><td>Uniqueness</td><td>Brokering role</td></tr>
</table>

Figure 6

The Evolving Teachers' Dispositions when Recognizing Differences in Digital Access



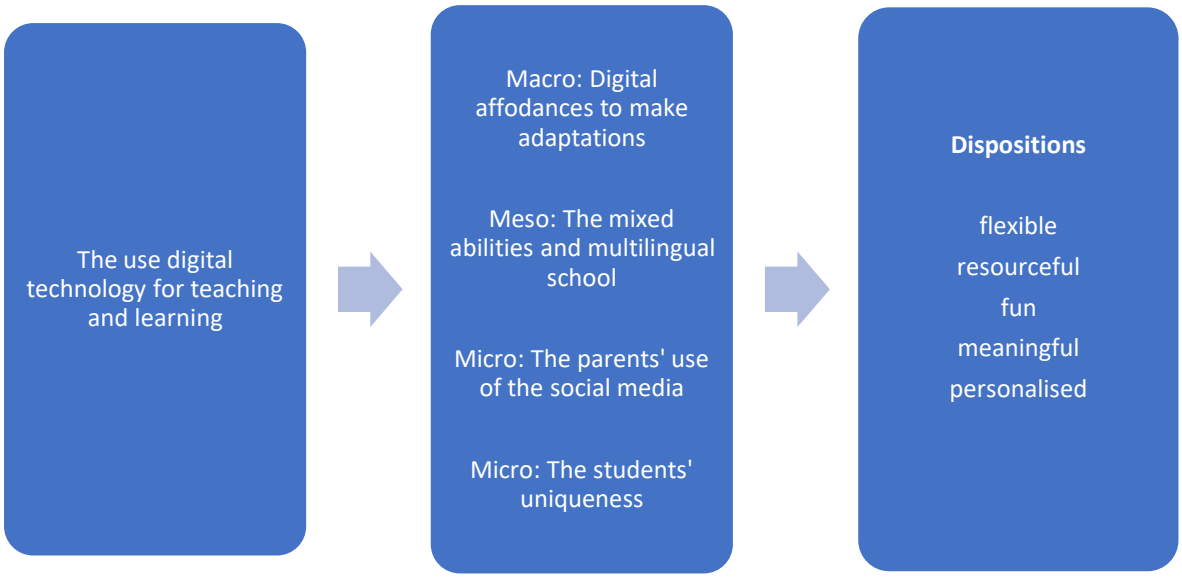
During the COVID-19 pandemic, teachers became aware of the opportunity of using digital technology to remain connected with the students. Teachers reflected on the differences in digital access and their dispositions evolved from empathising with the students' real-life situations to caring for their continuation of learning as illustrated in Figure 6.

Through the school support services teachers developed dispositions to learn the new digital skills and risk using them during the online lessons. In the process teachers developed dispositions to mutually interact to learn about the parent's beliefs and expectations from the school and the

students' diversity. Concurrently they developed dispositions to collaborate, share, trust each other and persevere to achieved the intended educational goals.

Figure 7

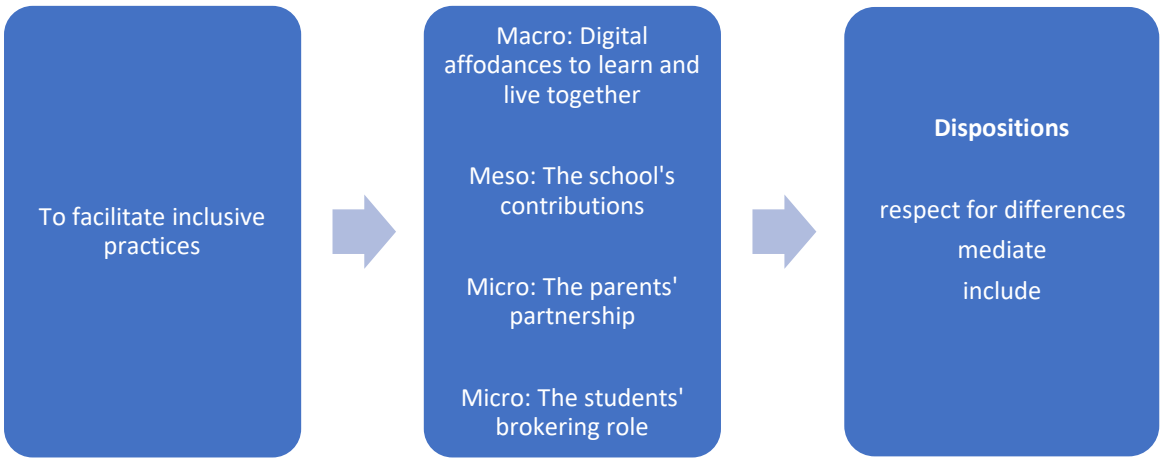
The Evolving Teachers' Dispositions when using Digital Technology for Teaching and Learning



When teaching and learning with digital technology, the teachers' interactions became more flexible and resourceful, as they became aware of the possibilities of the digital affordances for teaching and learning, such as using the social media to interact with the parents. Consequently, within multi lingual and mixed abilities schools, teachers developed more meaningful and personalised dispositions to accommodate the students' unique needs and abilities as illustrated in Figure 7.

Figure 8

The Evolving Teachers' Dispositions when Facilitating Inclusive Practices



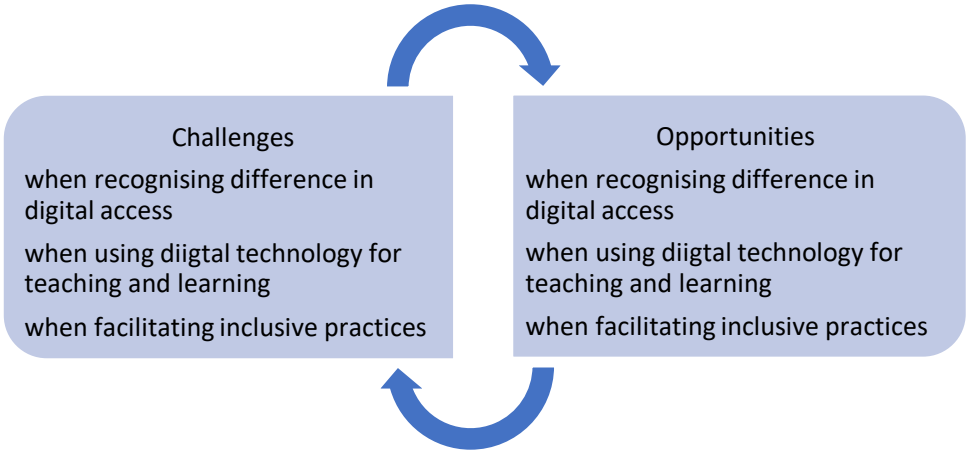
When facilitating inclusive practices, the affordances of digital technology to learn and live together influenced the teachers' dispositions to respect the students' differences. and through the school contributed various inclusive activities such as the school assembly were considered. The teachers' inclusive dispositions were also influenced by both the parent's partnership and the students' brokering role as illustrated in Figure 8.

5.3 Advanced synthesis of ideas represented through conceptual models and frameworks

The teachers' dispositions to facilitate equitable digital practices in multicultural classrooms were influenced by the context (Nelsen, 2015) the challenges and opportunities encountered by the teachers during the COVID-19 pandemic as illustrated in Figure 9.

Figure 9

The Challenges and Opportunities influencing the Teachers' Dispositions



5.3.1 Macro: Digital affordances

At the macro level, the digital affordances provided the opportunity to remain connected with the students. When recognising the differences in digital access teachers reflected and empathised with the students' realities and cared to use technology to remain connected with the students. Learning the new digital skills provided the teachers with the opportunity to continue teaching online. The teachers' dispositions to learn evolved from their caring dispositions. The challenge arose when the technological resources and the Internet connection was not available.

Teachers developed flexible and resourceful dispositions to remain connected through other means, such as by sending printed educational resources to the students. Additionally, when teaching and learning with digital technology teachers could adapt the curriculum, thus developing more meaningful and personalised dispositions. The challenge was that not all the teachers knew how to adapt the *physical* lessons to the online lessons. In appreciating the uniqueness of each

student, teachers developed dispositions to respect their differences. The teachers and the students developed dispositions to mediate the inclusive practices through digital affordances. One encountered challenge was that it was difficult to reach some students, especially those living in open centres.

5.3.2 Meso: The school community

At the meso level, through the school community the development of digital training was possible. Teachers became aware of the students' differences in digital access, both in terms of competence and resources. They became open to not only learn the new digital skills but also to teach them to the students and their parents. Teachers developed dispositions to collaborate with others, to share, trust and persevere to learn the new digital skills. These combined dispositions resulted in mutual interactions.

Within this diversity even the circumstances within a heterogeneous school, the mixed ability and multiple languages was considered a challenge for some teachers. Some believed that students should be grouped according to their abilities and language proficiency. However, within these circumstances some teachers developed flexible dispositions and used the digital affordances to make adaptations according to the students' language use and needs. Thus, the teachers' dispositions when using digital technology in heterogeneous schools became more meaningful and personalised. The school's ethos that diversity should be celebrated influenced the teachers' dispositions to respect differences and use mediators such as the power point presentations during the school assemblies to enable participation and the integration of all students. The challenge was when some teachers believed that such inclusive activities were not possible and opposed new ideas.

5.3.3 Micro: The parents

At the micro level, the parents' beliefs and expectations influenced the teachers' dispositions when recognising differences in digital access. Some teachers believed that it was challenging to connect with migrant parents because "they built a wall around them" and were not willing to collaborate. Teachers became aware that some parents were not digitally literate and some felt more comfortable using the social media. This influenced the teachers' dispositions to collaborate with these parents and use the social media to share the new digital skills and resources. They were flexible and resourceful in providing the parents with instructions on how to use the school platform through the Facebook page. Some parents believed that they didn't have the right technology to connect during the online lessons. This influenced the teachers' dispositions to adopt more

personalised approaches. Through mutual interactions they became aware of the technology which the parents felt comfortable using. They became aware that some parents lacked not only the digital skills by also the knowledge of how to use the technology. For example, some parents did not know that they could join the online lessons from their mobile phones.

When facilitating inclusive practices this process led the teachers to develop partnership with the parents who also contributed in the school activities. The challenge was that sometimes both the parents and the teachers found it difficult to move out of their comfort zones. It was difficult for the migrant parents to leave their *enclaves* and the teachers to challenge the *collective memory*.

5.3.4 Micro: The students

At the micro level when recognising differences in digital access, the students' diversity was considered a challenge by some teachers. Teachers changed their beliefs when they reflected on the students' situation, that upon arriving in the new school, in a new country everything was new for them. Teachers developed dispositions to learn about the students' life experiences and their digital practices.

The teachers' dispositions to mutually interact with the newly arrived students was an opportunity to learn about the students' unique qualities. Their dispositions became flexible and more personalised in their approaches. Also, the teacher's role changed to facilitate and scaffold the student's learning experiences while coaching them to become independent learners. Along the process some teachers believed that they should not take granted the students' different experiences. They developed dispositions to respect differences and use *mediators* to include all students. Some teachers believed that migrant students could deliver the school messages well to their parents. Consequently, teachers developed dispositions to encourage the students to act as brokers between the school and home. This enabled the integration of both the students and their family members.

Chapter 6. Conclusion

6.1 Restatement of the research questions

The research questions that guided this study were:

1. Which were the opportunities that influenced the teachers' dispositions to facilitate digital equity and inclusion?
2. Which were the challenges that influenced the teachers' dispositions to facilitate digital equity and inclusion?
3. How were the teachers' dispositions manifested in such contexts when they recognised differences in the students' digital access?
4. How were the teachers' dispositions manifested in such contexts when using digital technology for teaching and learning?
5. How were the teachers' dispositions manifested in such contexts when facilitating inclusive practices?

6.2 Summary of key findings as related to the research questions

The opportunities and challenges which influenced the teachers' dispositions are:

- At the macro level, the digital affordances to remain connected and the possibilities to adapt the curriculum according to the students' needs and abilities to continue learning and living together during the COVID-19 pandemic.
- At the meso level, the school support services to develop digital training, within heterogeneous schools and through the school contributions facilitate inclusive practices.
- At the micro level, the parents' beliefs and expectations from the school and their use of the social media to form partnership with the teacher.
- At the micro level, the students' diversity, the students' uniqueness and the students' brokering role.

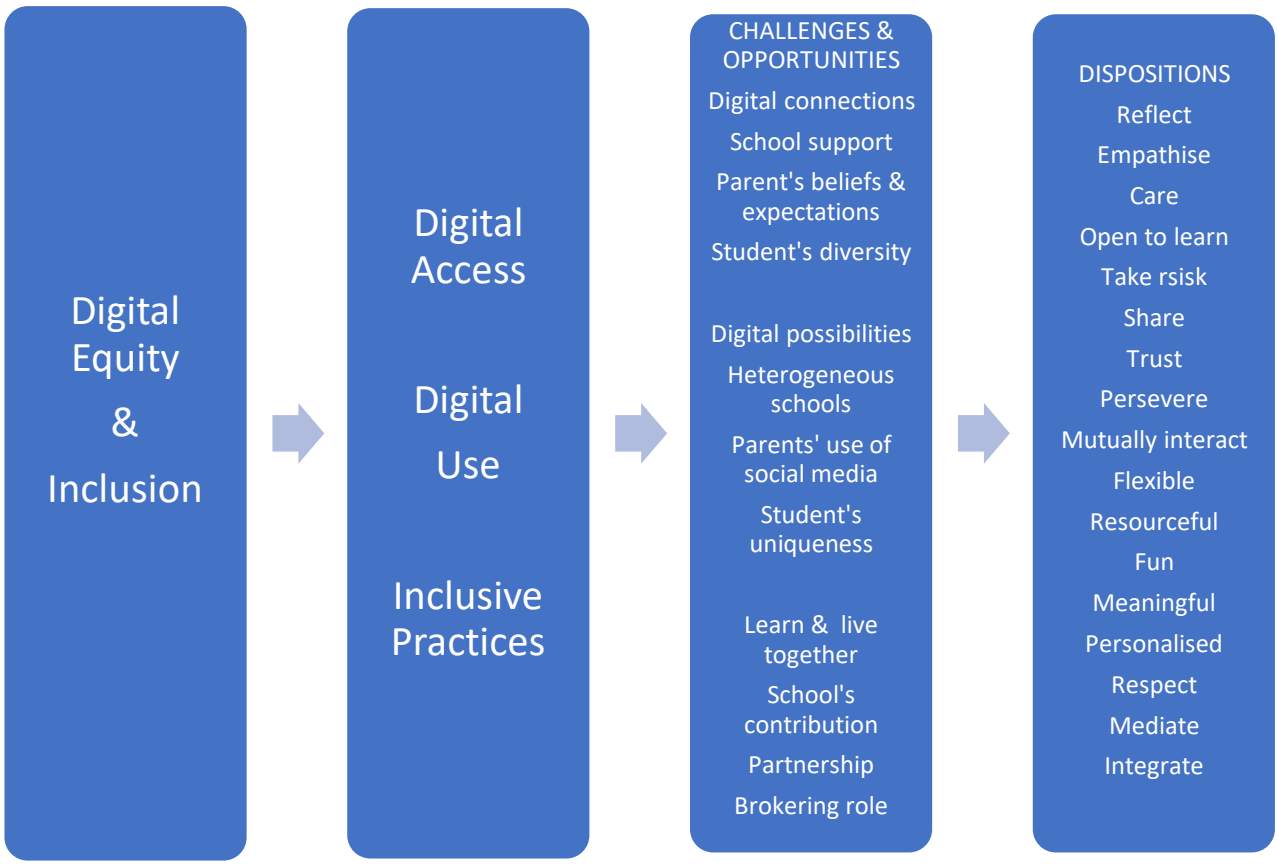
When recognising differences in digital access teachers reflected and empathised with the students' social and digital realities and developed disposition to care about the students' continuation of learning. Teachers then developed concurrent dispositions to learn, take risks, collaborate, trust and share the digital skills and resources with their collegeaues, students and their parents. Through these mutual interactions they developed persevering disposition to learn together.

When using digital technology for teaching and learning teachers developed dispositions to be flexible and resourceful to deliver meaningful, fun and personalised teaching experiences.

When facilitating inclusive practices, teachers developed dispositions to respect differences and used mediators to integrate all the students. The final synthesis of ideas is illustrated in Figure 10.

Figure 10

The Final Syntheses of Ideas



6.3 The contribution to knowledge

The main contributions to knowledge in this thesis are the identified teachers' dispositions to facilitate equitable digital practices in multicultural classrooms. In literature Ottenbreit-Leftwich, Kopcha and Ertmer (2018) highlighted the importance behind the teachers' digital dispositions including their pedagogical beliefs, their self-efficacy, their attitudes and their openness to change. While researchers Jensen, Feinauer Whiting and Chapman (2018) identified the teachers' multicultural dispositions including empathy, meekness, social awareness, inclusion and advocacy. The findings in this study indicate that the use of digital technology in multicultural classrooms, require a different set of teachers' dispositions.

Additionally, the time during the COVID-19 pandemic, when I was exploring the teachers' equitable digital practices in multicultural classrooms can be considered unique. Probably it could not have been possible to discover these findings during normal times. This investigation was a unique experience since the teachers' constructions were shared during a time of change. The use of digital technology was not an artificial imposition on the participating teachers, since due to the necessity to remain connected with the students they choose to change their traditional teaching practices to online teaching and learning.

These identified teachers' dispositions indicate that it is critical to equip students with the skills, mindset and opportunities to thrive in a rapidly changing world. Zapata Barrero (2017) looked at "individuals as holders of competences that need to be promoted" (p.11) which in this study are the competences (Table 20) that could be promoted when the teachers nurture the identified dispositions towards equitable digital practices and inclusion in the classrooms. These dispositions are important for the teacher to develop with the students during their daily face to face interactions for their inclusion and participation in a digitised and changing world.

During the pandemic the teachers in this study had the opportunity to reflect and recognise the students' differences in digital access. They developed dispositions to empathise and care about the students' digital literacy by learning and sharing the new digital skills needed for the continuation of learning. To prepare nowadays students to thrive in a rapidly changing world students need to be prepared with digital skills beyond the basic usage. Digital literacy could include coding, cybersecurity awareness and ethical internet use.

In recognising the students' differences teachers concurrently developed dispositions to learn, collaborate, share, trust and persevere in their attempts to use the digital technology. As they mutually interacted with each other, they fostered emotional awareness, resilience and the social skills to help them navigate relationships and personal challenges.

When using digital technology for teaching and learning, some teachers became flexible and resourceful in their approaches. They developed fun, meaningful and personalised activities which encouraged curiosity among the students as they asked more questions and solved the given tasks together. Critical thinking and problem solving were deemed important to nurture in students to prepare them for the complex future challenges. The interactions were also a springboard for creativity and innovations as they developed new ideas and created new hands on activities that allowed the students to value differences and think outside the box. The interactions were an opportunity for teachers to educate students to live sustainably and develop global awareness about environmental issues and help them become global citizens.

When facilitating inclusive practices, teachers developed dispositions to respect the students' differences. They made use of mediators to promote inclusivity and respect for the students' diversity, their different perspectives, languages and cultures.

These dispositions towards the equitable use of digital technology are important for all humanity and could be developed both in schools and also in other public spaces, with the new generations and also with the previous ones. Nowadays this is especially critical when using new technologies such as Artificial Intelligence (AI). It demands from the teachers and educators in general to reflect on what kind of ethical issues are emerging when using AI in education and develop sensibilities or dispositions to nurture solid grounds for the ethical use of AI and avoid digital divides and deepen the existing learning and income inequalities.

Table 20

Nurturing the Competences towards a Digitised Inclusive Classroom

Digital equity & Inclusion	**Disposition**	**Competence**
When recognising differences in digital access	Reflect	Emotional intelligence
	Empathise	
	Care	
	Open to learn	Digital literacy
	Take risks	
	Collaborate	
	Share	
	Trust	
	Persevere	
	Mutually interact	
When using digital technology for teaching and learning	Flexible	Critical Thinking
	Resourceful	Problem solving
	Fun	Creativity & Innovation
	Meaningful	
	personalised	
When facilitating inclusive practices	Respect differences	Sustainability & Global awareness
	Mediate	
	Integrate	Inclusivity and diversity

6.4 Final reflections

The teachers' dispositions towards digital equity and inclusion and the related trends identified in this doctoral journey have implications for my position as a migrant mother, as a teacher and a researcher. During the process of researching and writing my doctoral thesis I became aware of what the abstract term 'journey' meant. A journey implies discovery and every step taken during my doctoral journey implied gaining insight about my own biases and rationale regarding this investigation.

As a mother my daily encounters with my children's teachers and my children' school performance made me reflect on the teachers' dispositions, their beliefs and actions towards digital equity and inclusion. I realised that even though technology is ubiquitous we still need to learn how to make the best use of its affordances, since there may be underlying influences such as the teachers' beliefs and actions which confound one's intentions. For example, during my doctoral journey I became aware that my children's school were using two platforms. The parents had access to only one of these platforms while the other platform could be accessed through their children. Consequently, since the parents did not have access to the platform being used by their children, they could not support them. Therefore, as a parent I had to trust my children that if they needed help they were going to ask for my support. On the other hand, I felt that it was challenging when my children did not ask for my support. As a mother I had to challenge my previous beliefs that I must always help my children in their studies, however I was realising that with the teachers' strategies and digital affordances they were becoming independent learners.

As a teacher I experienced this growth in frame of mind in the teachers' beliefs and actions. I find the spiral effect of how the teachers' dispositions evolved from reflections to inclusion as the most intriguing. It makes me realise that the state of one's disposition is as unique as one's personality and depends on one's consciousness.

If one is not able to critically reflect one cannot make changes towards facilitating equitable digital practices in multicultural classrooms. During this journey I became aware that not all teachers have the same sensibilities to reflect and care to make changes. Thus, I feel that within the teachers' community the development of these dispositions should be a group effort, where the teachers have the opportunity to mutually interact and learn from each other.

Additionally, as a teacher I also feel that teachers should be given the space and time to learn about the students' differences and unique qualities and through the digital affordances develop a holistic student-centred approach to learning. Furthermore, I consider continuous assessment an important tool to inform us throughout the students' learning journey and not only towards the end through examinations. These tools are also important to identify the student's needs and thus

develop a holistic approach to learning based on the student's interests. In this way learning is not geared towards the attainment of grades and certificates but towards life-long learning experiences.

As a researcher I feel that the students' learning progress does not depend only on the teacher, but on other actors within the educational system, including the digital affordances, the school community and the parents' support. The teachers' work is always related to what is happening in society. Consequently, the teachers' dispositions, their beliefs which influence their actions are important to investigate since change in their strategies is only possible after the change in their beliefs. The reality is that there is no ideal teacher but only teachers who are willing and striving to change their negative or racist beliefs towards positive and inclusive ones.

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Appendix I - Consent and assent forms and information letters

Appendix II – Member checking

Information Letter – Head of School

21st May 2020

Dear Head of School,

I am Marthese Spiteri, a student reading for my doctoral studies at the University of Malta. As part of my studies I will be carrying out a research investigation entitled "Exploring Maltese teachers' dispositions to practice digital equity in the classroom", under the supervision of Dr Philip Bonanno PhD, a senior lecturer at the Faculty of Education, at the University of Malta.

For this study I will be exploring Maltese teachers' dispositions to use digital technology, to connect with and engage students coming from diverse cultural backgrounds. I consider teachers' experiences are worth sharing, especially now during the COVID-19 pandemic. Consequently, I would like to invite your teaching staff to participate in my research, which will be held during the scholastic year 2020/21.

Data on teachers' dispositions to use digital technology with diverse students will be collected from an online questionnaire and an online individual interview. The online questionnaire will be distributed to class teachers teaching Year 4, 5 and 6 in selected primary schools in Malta. The online individual interviews will be conducted with four class teachers from Year 4, 5 or 6 from four different schools. If more teachers volunteer, I will randomly select the required number of teachers. The online questionnaire is anonymous and takes around 10 minutes to complete while the teachers' interviews will take approximately 30 minutes.

Further data on the students' and their parents' digital practices will be collected from an online interview. Students coming from other countries will be identified with the help of the class teacher. Their interviews will take approximately 15 minutes each. Interviews will be conducted in English or Maltese, however if other languages are required by the participants I will try to identify interpreters.

All interviews will be held on an agreed day and time. They will be audio recorded as I would need to transcribe the responses in order to analyse them. However, should participants prefer not to be audio-recorded, I will take notes instead. I will keep all identities and that of the schools confidential and anonymised in my write-up through the use of codes. Further, all participants will be part of the analysis process. I will provide each with a copy of the transcript of the interview and ask them to check it. All data will only be used for the study purpose and will be destroyed once the research is ready, however I intend to disseminate my research findings through publications and conferences.

Participation is voluntary and every participant is free to withdraw from the study at any time without suffering any negative consequences. Should participants choose to withdraw, all their data will not be used for the study, and it will be destroyed. Any notes taken and audio-recorded data will be securely stored and will be accessed only by myself and my supervisor.

Should you give me permission to conduct research at your school, I would appreciate if you could forward the information letter to all Year 4, 5 and 6 class teachers and the link to the anonymised online questionnaire which will be sent this October 2020. Those teachers interested in participating in the online interview are kindly asked to contact me by the 31st June 2020. If you require further information please do not hesitate to contact me or my supervisor. Thank you for your kind attention.

Sincerely,

Marthese Spiteri

PhD student
Marthese Spiteri
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Dr Philip Bonanno PhD Senior lecturer at the UM
Office telephone number: +356 2340 6508
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Information Letter – Teachers

17th May 2020

Dear Teacher,

I am Marthese Spiteri, a student reading for my doctorate at the University of Malta. As part of my studies I will be carrying out a research investigation entitled "Exploring Maltese teachers' dispositions to practice digital equity in the classroom", under the supervision of Dr Philip Bonanno PhD, a senior lecturer at the Faculty of Education, at the University of Malta.

For this study I will be exploring Maltese teachers' dispositions to use digital technology, to connect with and engage students coming from diverse cultural backgrounds. I consider your teaching experiences are worth sharing, especially now during the COVID-19 pandemic. Consequently, I would like to invite you to participate in my research, which will be held during the scholastic year 2020/21.

Data on the teachers' dispositions to use digital technology with diverse students will be collected from an online questionnaire and an online individual interview. The online questionnaire will be distributed to class teachers teaching Year 4, 5 and 6 in selected primary schools in Malta. The online individual interview will be conducted with four class teachers from Year 4, 5 or 6 from four different schools. If more teachers volunteer, I will randomly select the required number of teachers. The online questionnaire is anonymous and takes around 10 minutes to complete while the teachers' interviews will take approximately 30 minutes.

Further data on the students' and their parents' digital practices will be collected from an online interview. The students coming from diverse cultural background will be identified with the help of the class teacher. Their interviews will take approximately 15 minutes each. Interviews will be conducted in English or Maltese, however if other languages are required by the participants I will try to identify interpreters.

All interviews will be held on an agreed day and time. They will be audio recorded as I would need to transcribe your responses in order to analyse them. However, should you prefer not to be audio-recorded, I will take notes instead. I will keep all your identities and that of the schools confidential and anonymised in my write-up through the use of codes. Further, you will be part of the analysis process. I will provide you with a copy of the transcript of the interview and ask you to check it. All data will only be used for the study purpose and will be destroyed once the research is ready, however I intend to disseminate my research findings through publications and conferences.

Your participation is voluntary and you are free to withdraw from the study at any time without suffering any negative consequences. Should you choose to withdraw, your data will not be used for the study, and it will be destroyed. Any notes taken and the audio-recorded data will be securely stored and will be accessed only by myself and my supervisor.

At the beginning of the scholastic year 2020/21 I will send you the link to an anonymised online questionnaire through your head teacher and make an appointment for the interview. I would be grateful if you give your consent to be interviewed. If you agree please print, sign, scan and send the attached Consent Form. Should you require further information please do not hesitate to contact me or my supervisor.

Thank you for your interest.

Sincerely,

Marthese Spiteri
PhD student
Mobile number: 0046 723875043

Dr Philip Bonanno PhD Senior lecturer at the UM
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Informazzjoni ġenerali għall-istudenti

17 ta' Mejju 2020

Għaziz Student/a,

Jiena Marthese Spiteri, studenta mill-Universita ta' Malta. Qegħda nistudja dwar kif issir riċerka fil-qasam ta' l-edukazzjoni.

Bħala parti mil-kors, qed ngħamel riċerka dwar kif l-għalliema l-aħjar jużaw it-teknoloġija fil-klassi ma studenti li ġejjin minn kulturi differenti. Għal din ir-raġuni qed nistiednek biex tieħu sehem f'din ir-riċerka matul is-sena skolastika 2020/2021. Jien nixtieq nintervista lil xi studenti li ġew joqgħodu Malta. Jekk dawn l-istudenti ma jkunux jafu jitkellmu bil-Malti jew bl-Ingliz nipprova nsib interpretu. Matul l-intervista insaqsikom dwar kif tużaw it-teknoloġija fl-iskola u d-dar. Din l-intervista issir online u tieħu madwar 15 il-minuta. Waqt l-intervista wieħed mill-ġenituri tiegħek se jkun preżenti. Bil-permess tieghek inkun nixtieq nirrekordjata d-diskussjoni taghna, biex tgħini niftakar dak li nitkellmu fuqu. Jekk ma tridtx li nirrekordjak nitlob permess minn għandek biex nieħu in-noti minflok.

Meta nikteb ir-riċerka tiegħi mhux ser nuża l-isem tiegħek imma nuża' kliem oħra biex ma jingħarfux. F'din ir-riċerka, tieħu sehem jekk inti trid, mhux bilfors u tista' tieqaf meta trid.

Jekk għandek xi mistoqsijiet tistgħa issaqsini billi inti jew il-ġenituri tiegħek iċċempluli jew tibgħatuli email.

Grazzi talli qrajt din l-ittra.

Marthese

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Information Letter – Student

17th May 2020

Dear Student,

My name is Marthese Spiteri, a student at the University of Malta. I am studying to become a researcher in education.

As part of my course, I am conducting a research study to find out how teachers can best use digital technology to help all students learn. For this reason, I am inviting you to take part in my study during the school year 2020-2021. I would like to interview you online. If you cannot speak Maltese or English I will try and find an interpreter. I will ask you some questions related to how you use digital technologies at school and at home. During the online interview one of your parents will be present. This conversation will take 15 minutes and with your permission I would like to record our discussion to help me remember what we said. However, if you prefer not to be recorded, I will take notes instead.

When I write about my study, your name will not be used, as I will use codes instead of names. You will participate only if you wish to. If you decide to take part, and then you change your mind, you are free to stop whenever you want.

If you have any questions, please ask me! You may e-mail me or if you prefer, your parents can e-mail or phone me.

Thank you for reading this letter.

Regards

Marthese

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Informazzjoni ġenerali għall-ġenituri/adulti

(distributed to potential interview participants)

17 ta' Mejju 2020

Għeżiż Ġenituri/Adulti,

Jiena Marthese Spiteri, studenta fl-Universita' ta' Malta. Bħala parti mill-istudji tiegħi qed ngħmel riċerka bit-titlu 'Exploring Maltese teachers' dispositions to practice digital equity in the classroom', taħt is-superviżżjoni ta' Dr Philip Bonanno PhD, lettur fl-Universita' ta' Malta.

Matul is-sena skolastika 2020/21, nixtieq nintervista żewġ ġenituri li jkunu ġew joqgħdu Malta f'dawn l-aħħar snin. L-intervista tkun bil-Malti jew bl-Ingliż. Fil-kas li jkun hemm bżonn, l-għajnuna ta' interpretu tiġi ikkonsidrata. Waqt l-intervista ser nistaqsikom dwar kif tużaw it-teknoloġija id-dar biex tgħinu lit-tfal fl-istudji tagħhom. L-intervista issir online u iddum madwar 15 il-minuta, f'ġurnata u ħin magħżul min qabel.

Bil-kunsens tagħkom, dawn l-intervisti jiġu rekordjati biex jgħinuni niftakar xi jkun ingħad waqt l-intervista. Jekk tixtieq li ma tiġiex irrekordjat nieħu noti minflok. Jiena u s-superviżur biss ikollna aċċess għal din l-informazzjoni. Nixtieq nassigurakom ukoll li isimkom ma jkunx jidher fir-riċerka u bl-ebda mod ma tistgħu tiġu identifikati għax ser nuża kodiċi minflok l-ismijiet.

Fl-aħħar tar-riċerka kull min jieħu sehem jingħata kopja tal-intervista biex jara/tara jekk dak li nkun ktibt huwiex dak li ridtu tgħidu waqt l-intervista. L-informazzjoni kollha li nkun ġbart matul din is-sena tkun meqruda wara li jintemm l-istudju, pero għandi l-intenzjoni li nippublika ir-risultati f'ġurnali u konferenzi.

Napprezza ħafna jekk inti taċċeta li tiġi intervistat/a. Jekk jogħġbok u jekk hu possibbli, ipprintja, iffirma, iskannja u ibgħatli il-Formola tal-Kunsens.

Jekk tixtieq iktar informazzjoni tistgħa issaqsi lili jew lis-superviżur billi iċċempel jew tibgħatli email.

Grazzi talli qrajt din l-ittra.

Marthese Spiteri

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Supervisor
Dr Philip Bonanno PhD
Office telephone number: +356 2340 6508
Email address: philip.bonanno@um.edu.mt

Information Letter – Parent/Adult Participation

(distributed to potential interview participants)

17th May 2020

Dear Parent/Adult,

I am Marthese Spiteri, a student reading for my doctorate at the University of Malta. As part of my studies I will be carrying out a research investigation entitled "Exploring Maltese teachers' dispositions to practice digital equity in the classroom", under the supervision of Dr Philip Bonanno PhD, senior lecturer at the Faculty of Education, University of Malta.

During the scholastic year 2020/2021, I would also like to invite you, as a parent coming from another cultural background, to share with me your digital practices related to your child's education during an interview. The interviews will be conducted online individually in English or Maltese, however if interpreters are available other languages will be considered. Interviews will be held on an agreed day and time and will take approximately15 minutes.

With your consent the interviews will be audio recorded. This will help me remember the details of the conversation. Should you prefer not to be audio-recorded, I will take notes instead. I will keep all identities and that of the schools confidential and anonymised in my write-up through the use of codes. You will also be part of the analysis process. I will provide each with a copy of the transcript of the interview and ask them to check it. All data will only be used for the study purpose and will be destroyed once the research is ready, however I intend to disseminate my research findings through publications and conferences.

Participation is voluntary and every participant is free to withdraw from the study at any time without suffering any consequences. Should you choose to withdraw, all your data will not be used for the study, and it will be destroyed. Any notes taken, video and audio-recorded data will be securely stored and will be accessed only by myself and my supervisor.

I would be grateful if you would give your consent to be interviewed. If possible, please print, sign and scan and send the attached *Consent Form* at your convenience.

If you require any further information please do not hesitate to contact me or my supervisor.

Thank you for your kind attention.

Sincerely,

Marthese Spiteri

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Supervisor
Dr Philip Bonanno PhD
Office telephone number: +356 2340 6508
Email address: philip.bonanno@um.edu.mt

Consent Form – Teacher

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

I confirm that I have read the attached *Information Letter* for this study and that I have had the opportunity to ask questions and discuss the study. I give consent for Ms Marthese Spiteri to conduct her study on condition that:

- I am free to withdraw at any time from participating in the research.
- The audio recordings will be stored securely and only accessible to Ms Marthese and her supervisor.
- The recordings will be destroyed when Ms Marthese finishes her study.
- The identity of the school, that of the teacher and the students and their parents will be anonymised by using codes instead of names in the final write-up.
- The audio recorded data will be stored on an encrypted drive which will be kept securely at home.

Kindly tick those boxes to which you give consent to. I give my consent for Ms Marthese to:

- ☐ remotely interview me during the scholastic year 2020/21 on agreed time and place
- ☐ audio record me during the interviews
- ☐ publish anonymised quotes from my interview in the results of this research

I give my consent on condition that Ms Marthese will also be obtaining parent/guardians' consent for the children's participation and that she will be obtaining the children's assent in a manner that is easy for the children to understand.

Teacher's name Teacher's signature Teacher's contact email

Researcher's Signature Date

Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Il-kunsens tal-ġenituri/adulti għall-parteċipazzjoni tagħhom

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

Jien nikkonferma li qrajt l-informazzjoni relatata ma din ir-riċerka u ngħati il-kunsens tiegħi għall-parteċipazzjoni f'dan l-istudju ta' Marthese Spiteri's fuq dawn il-kundizzjoniet:

- Nista nirtira il-kunsens tiegħi meta rrid matul din ir-riċerka.
- Is-siltiet tal-awdjo reġistrati ikunu maħżuna sew u aċċesibli biss għal Ms Marthese u għas-superviżur tagħha.
- Ir-reġistrazzjonijiet ikunu meqruda meta Ms Marthese tlesti mir-riċerka.
- Ms Marthese tuża kodiċi biex l-identita tal-iskola u tal-għalliema ma tinkixifx.
- L-informazzjoni awdjo rekordjata tinħażen fuq drive encrypted li tinżamm sigura id-dar.

Jekk jogħġbok immarka il-kaxxa biex tikkonferma il-kunsens:

- ☐ Niġi intervistata online fil-ġurnata u l-ħin miftiehem min qabel
- ☐ Naċċeta li l-intervista tiġi awdjo reġistrata

Isem il-ġenitur/adult

Il-firma tal-ġenitur/adult

Il-firma tar-riċerkatur

Data

Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Il-firma tar-riċerkatur

Data

Parent/Adult Consent Form for their Participation

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

I confirm that I have read the attached Parent/Adult Information Letter for this study and that I give consent for my participation in Ms Marthese Spiteri's study on conditions that:

- I am free to withdraw my consent at any time in the course of the research study.
- The audio recordings will be stored securely and will only be accessible to Ms Marthese and her supervisor.
- The recordings will be destroyed when Ms Marthese finishes her study.
- The school and the identity of the teacher and the students will be anonymised by using codes in the final write-up.
- The audio recorded data will be stored on an encrypted drive which will be kept securely at home.

Kindly tick those boxes to which you give consent to. I give my consent that:

- ☐ I will be remotely interviewed on an agreed day and time
- ☐ I will be audio recorded

Parent/Adult's name

Parent/Adult's signature

Researcher's Signature

Date

Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Il-kunsens tal-ġenituri għall-parteċipazzjoni ta' uliedhom

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

Jien nikkonferma li qrajt l-informazzjoni relatata ma din ir-riċerka u ngħati il-kunsens lit-tiefel/tifla tiegħi biex jipparteċipa/tipparteċipa fl-istudju ta' Marthese Spiteri, fuq dawn il-kundizzjoniet:

- Nista nirtira il-kunsens tiegħi meta rrid matul din ir-riċerka.
- Wieħed mill-ġenituri ikun preżenti waqt l-intervista.
- It-tifel/tifla tiegħi jagħi/tagħti il-kunsens biex jipparteċipa/tipparteċipa f'dan l-istudju.
- Is-siltiet tal-awdjo reġistrati ikunu maħżuna sew u aċċesibli biss għal Ms Marthese u għas-superviżur tagħha.
- Ir-reġistrazzjonijiet ikunu meqrudin meta Ms Marthese tlesti mir-riċerka.
- Ms Marthese tuża kodiċi biex l-identita tal-iskola u tal-għalliema ma tinkixifx.
- L-informazzjoni vidjo rekordjata tinħażen fuq drive encrypted li tinżamm sigura id-dar

Jekk jogħġbok immarka il-kaxxa fejn tagħti il-kunsent:

- ☐ It-tifel/tifla tiegħi jista jiġi/tista tiġi intervistat/a online
- ☐ It-tifel/tifla tiegħi jista jiġi/tista tiġi awdjo reġistrat/a

Dan kollu b'kundizzjoni li Ms Marthese, fejn japplika, tikseb ukoll il-permess mingħand it-tifel/tifla.

Isem tat-tifel/tifla

Isem tal-ġenitur

Firma tal-ġenitur

Firma tar-riċerkatur

Data

Marthese Spiteri
Mobile number: 0046 723875043

Email address: marthese.spiteri.95@um.edu.mt

Parent/Guardian Consent Form for Students' Participation

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

I confirm that I have read the attached Parent/Guardian Information Letter for this study and that I give consent for my child to participate in Ms Marthese Spiteri's study on condition that:

- I am free to withdraw my consent at any time in the course of the research study.
- One of the parents will be present during the interview.
- My son/daughter gives his/her assent to participate in the study.
- The audio recordings will be stored securely and only accessible by Ms Marthese and her supervisor.
- The recordings will be destroyed when Ms Marthese finishes her study.
- The school and the identity of the teacher and the students will be anonymised since Ms Marthese will use codes in her write-up.
- The audio recorded data will be stored on an encrypted drive which will be kept securely at home.

Kindly tick those boxes to which you give consent to. I give my consent that:

- ☐ my child may be interviewed online
- ☐ my child may be audio recorded

These are on condition that Ms Marthese, were applicable, will also obtain the children's assent in a manner that is easy for the children to understand.

Child's name

Parent/Adult's name Parent/Adult's signature

Researcher's Signature Date

Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Participation Assent Form – Studenti

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

Ms Marthese spjegat dawn il-punti:

- nistgħa nagħżel jekk irridx inkellimha jew le
- wieħed mill-ġenituri tiegħi se jkun preżenti waqt l-intervista
- nistgħa nagħżel jekk dak li ngħid ikunx irrekordjat
- ma tużax ismi meta tikteb dwar il-lezzjonijiet
- nistgħa nieqaf nieħu sehem meta irrid
- tista tippublika ir-riżultati tar-riċerka
- is-siltiet tal-awdjo reġistrati ikunu maħżuna sew u aċċesibli biss għal Ms Marthese u għas-superviżur tagħha.

Jekk jogħgbok immarka il-kaxxi ✕ fejn taqbel:

☐ Kuntent/a li nitkellem ma Ms Marthese dwar l-użu tat-teknoloġija online ☺

☐ Kuntent/a li dak li ngħid ikun rekordjat ☺

☐ Kuntent/a li Ms Marthese tippublika r-riżultati mingħajr ismijiet veri ☺

_____

Isem tal-istudent

_____ _____

Firma tar-riċerkatur Data

Participation Assent Form – Students

Exploring Maltese teachers' dispositions to practice digital equity in the classroom

Ms Marthese explained that:

- I can choose to speak to her or not
- One of my parents will be present during the interview
- I can choose if I wish to be audio recorded or not
- She will not use my name when she writes about our lessons
- I can change my mind whenever I like
- She will publish the findings without referring to real names.
- The audio recordings will be stored securely and only accessible by Ms Marthese and her supervisor.

Kindly tick the boxes ✕ which you agree to:

☐ I am happy ☺ to talk to Ms Marthese about the lessons online

☐ I am happy ☺ to be audio recorded

☐ I am happy ☺ for Ms Marthese to publish the findings

_____

Child's name

_____ _____

Researcher's Signature Date

Informazzjoni ġenerali għall-ġenituri/adulti għall-parteċipazzjoni ta' uliedhom
(distributed to potential interview participants)

17 ta' Mejju 2020

Għeżiż Ġenituri/Adulti,

Jiena Marthese Spiteri, studenta fl-Universita' ta' Malta. Bħala parti mill-istudji tiegħi qed ngħmel riċerka bit-titlu 'Exploring Maltese teachers' dispositions to practice digital equity in the classroom', taħt is-superviżżjoni ta' Dr Philip Bonanno PhD, lettur fl-Universita' ta' Malta.

Matul is-sena skolastika 2020/21, nixtieq nintervista lit-tifel jew tifla tiegħek li ġi/ġiet j/toqgħd Malta f'dawn l-aħħar snin. L-intervista tkun bil-Malti jew bl-Ingliż. Fil-kas li jkun hemm bżonn, l-għajnuna ta' interpretu tiġi ikkonsidrata. Waqt l-intervista ser nistaqsihom dwar kif jużaw it-teknoloġija id-dar biex tgħinhom fl-istudji tagħhom. L-intervista issir online u iddum madwar 15 il-minuta, f'ġurnata u ħin magħżul min qabel.

Waqt l-intervista nixtieq ukoll il-preżenza tagħkom u bil-kunsens tagħkom nixtieq li din l-intervista tiġi rekordjata biex tgħini niftakar xi jkun ingħad waqt l-intervista. Jekk tixtieq li it-tifel jew it-tifla tiegħek ma j/tiġiex irrekordjat/a nieħu noti minflok. Jiena u s-superviżur biss ikollna aċċess għal din l-informazzjoni. Nixtieq nassigurakom ukoll li isimkom ma jkunx jidher fir-riċerka u bl-ebda mod ma tistgħu tiġu identifikati għax ser nuża kodiċi minflok l-ismijiet.

Fl-aħħar tar-riċerka kull min jieħu sehem jingħata kopja tal-intervista biex jara/tara jekk dak li nkun ktibt huwiex dak li ridtu tgħidu waqt l-intervista. L-informazzjoni kollha li nkun ġbart matul din is-sena tkun meqruda wara li jintemm l-istudju, pero għandi l-intenzjoni li nippublika ir-risultati f'ġurnali u konferenzi.

Napprezza ħafna jekk inti taċċeta li tiġi intervistat/a. Jekk jogħġbok u jekk hu possibbli, ipprintja, iffirma, iskannja u ibgħatli il-Formola tal-Kunsens.

Jekk tixtieq iktar informazzjoni tistgħa issaqsi lili jew lis-superviżur billi iċċempel jew tibgħatli email.

Grazzi talli qrajt din l-ittra.

Marthese Spiteri

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Supervisor
Dr Philip Bonanno PhD
Office telephone number: +356 2340 6508
Email address: philip.bonanno@um.edu.mt

Information Letter – Parent/Adult regarding Student Participation

(distributed to potential interview participants)

17th May 2020

Dear Parent/Adult,

I am Marthese Spiteri, a student reading for my doctorate at the University of Malta. As part of my studies I will be carrying out a research investigation entitled "Exploring Maltese teachers' dispositions to practice digital equity in the classroom", under the supervision of Dr Philip Bonanno PhD, senior lecturer at the Faculty of Education, University of Malta.

During the scholastic year 2020/2021, I would like to invite your child, as a student coming from a different cultural background, to share with me his or her digital practices related to education during an interview. The interview. You will be conducted online individually in English or Maltese, however if interpreters are available other languages will be considered. Interviews will be held on an agreed day and time and will take approximately15 minutes.

I would also like your presence during the interview and with your consent audio record the interview. This will help me remember the details of the conversation. Should you prefer your child not to be audio-recorded, I will take notes instead. I will keep all identities and that of the schools confidential and anonymised in my write-up through the use of codes. You will also be part of the analysis process. I will provide each with a copy of the transcript of the interview and ask them to check it. All data will only be used for the study purpose and will be destroyed once the research is ready, however I intend to disseminate my research findings through publications and conferences.

Participation is voluntary and every participant is free to withdraw from the study at any time without suffering any consequences. Should you choose to withdraw, all your data will not be used for the study, and it will be destroyed. Any notes taken, video and audio-recorded data will be securely stored and will be accessed only by myself and my supervisor.

I would be grateful if you would give your consent for your child to be interviewed. If possible, please print, sign, scan and send the attached *Consent Form* at your convenience.

If you require any further information please do not hesitate to contact me or my supervisor.

Thank you for your kind attention.

Sincerely,

Marthese Spiteri

PhD student
Marthese Spiteri
Mobile number: 0046 723875043
Email address: marthese.spiteri.95@um.edu.mt

Supervisor
Dr Philip Bonanno PhD
Office telephone number: +356 2340 6508
Email address: philip.bonanno@um.edu.mt

Appendix II - Member checking

As soon as interviews were conducted they were then transcribed ad verbatim, this ensured that no data was missing. To rule out the possibility of misinterpreting what the participants meant to say, I checked my understanding in the emerging findings with the teachers. Table 1 is a sample of the results from a member check. The participating teachers were asked for their feedback on the emerging findings. They all recognised their experiences in the excerpts that I sent them.

This strategy ensures credibility or internal validity and it is called *member checks* or *respondent validation* (Merriam, 2009). Additionally, the findings from the semi-structured interviews will also be corroborated with those of the narrative scenarios.

Table 1. Exhibit -- is a sample of the result from a member check

Teacher	Teacher's excerpt	Teacher's comments	Action taken by researcher
T3	*"Maltese teachers felt that the use of digital technology encouraged diverse students, who could not speak neither English nor Maltese, to interact with the rest of the class and express themselves. He felt it was not safe for the students' well-being, when they couldn't speak in any common language. The teacher cared for the students and was concerned both about the students' wellbeing and their academic achievement. Consequently, he decided to learn to use the MS Teams quickly, so he could stay in touch with all the students."*	That is what I intended to say with the quote below.	none
T4	*"The teacher felt that the use of digital resources enabled him not only to talk about the values of acceptance and inclusion but also to model them. He believed that besides telling how to behave the teacher must also role play the expected behaviour and this could also be done through the use of digital tools. Therefore, through the use of digital technology the teacher could model the expected behaviour."*	Ok	none
T5	*"The teacher believed that having diverse students in class was an advantage. She made use of the students' experiences, cultures and traditions as the starting point of their lessons. The teacher tried "to make the best of what they bring, the baggage they come with". It was something the teacher looked forward to and was willing to be flexible and resourceful and include them in the lessons and publicly support them."*	No reply	none
T6	*"The teacher realised that migrant students delivered the school messages well and informed their parents about what needed to be accomplished in class. She felt that the students were good mediators, that she could trust them in delivering the message to their parents."*	Yes 	none
T7	*"The teacher made learning more meaningful for the students who couldn't understand the local languages by finding ideas from the*	No reply	none

	Internet and downloading them on the IWB and the Tablet. He made use of quizzes to assess the students' learning, used Simple Minds to prepare the creative writing and for the students to present a movie he used the Animator."		
T8	*The teacher became aware of the student's differences; because of war he missed going to school like the other students. He realised that the student needed extra support, and the use of technology enabled this support. The teacher believed that this student could still learn even if he had a different and difficult past, as he stated "but with the Tablet we deliver".*	No reply	none
T15	*"During a particular celebration taking place in Maltese schools in February, teachers became aware that the foreign students were not understanding them when they were talking about a local celebration, the Carnival. It was only after the teachers showed pictures and videos of the traditional Maltese feast, that foreign students could start to understand. The teacher showed videos to the students to help them understand this traditional celebration. Then he tried to teach his students the Carnival song. Eventually the students started singing the song and paraded with the musical instruments in the school yard.* *The students' enthusiasm made the parents' interest in the event and together they played the video at home. Then the parents shared with the teacher how happy their child was when they played the video at home. The meaning of the Carnival celebration was introduced at home through the school activities using digital resources. Further the parents' appreciation influenced his dispositions towards the use of technology, who although he felt she was not so young, he could still use digital resources to teach his students."*	Yes that is what I meant	none
T19	*"The teacher became aware of the parents' different beliefs and expectations regarding the education of their children. He became aware that some parents expected their children to be independent, to be able to make their own decisions. This new view of life made him realise that people hold different beliefs and expectations about learning. The teacher became more tolerant and considered this view as an opportunity to learn. He believed that everyone carries one's own baggage, their own opinions and life experiences "we have to open our minds" and as teachers take the opportunity and give the students an experience of what it means to live in another country."*	No reply	none