

The Educator

A JOURNAL OF EDUCATIONAL MATTERS



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The Educator

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The Educator

A journal of educational matters

The objective of this annual, peer-reviewed journal is to publish research on any aspect of education. It seeks to attract contributions which help to promote debate on educational matters and present new or updated research in the field of education. Such areas of study include human development, learning, formal and informal education, vocational and tertiary education, lifelong learning, the sociology of education, the philosophy of education, the history of education, curriculum studies, the psychology of education, and any other area which is related to the field of education including teacher trade unionism.

This journal accepts articles from teachers, academics, administrators, graduate students, policy-makers, education specialists and any other author or researcher whose work contributes to the different facets of education and related areas.

It is the aim of *The Educator* to publish articles which cover particular dimensions such as:

- The integration of education with other academic disciplines including history, law, linguistics, anthropology, demography, philosophy, economics, psychology, political science, and sociology, among others.
- b. The examination of educational issues from a cross-cultural perspective.
- c. The inclusion of substantive findings that may be of help to policy-makers and practice.
- d. The examination of information technology in the field of education.
- e. The implementation of research methods and measurement processes which are clearly presented.
- f. The presentation of theories, models or conceptual frameworks in the field of education.
- g. The exposition of research findings derived from comparative and cross-national studies in education.
- The presentation and discussion of material derived from primary sources including archival documents, primary data and resource persons.
- Any other dimension which the editorial board deems compatible with the overall objectives of the journal.

Authors who are interested in having their work published in *The Educator* may contact the editor on **george.cassar@um.edu.mt**

Opportunities and threats in collaborative practice between educators in a Maltese Early Years setting

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Introduction

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Due to an increasing population in schools, diversity has grown, bringing with it a wider range of abilities (Olore, 2017). As stated in the National Inclusive Education Framework (Ministry for Education and Employment, MEDE, 2019), "All learners have diverse needs, characteristics, learning preferences, diverse social and emotional needs" (p. 13). For educators to reach these challenges in today's education the importance for educators to collaborate is vital as it helps to create and deliver a positive atmosphere in the classroom. To work collaboratively, teams – teacher / kindergarten educator (KGE) working with learning support educators (LSEs) in the same classroom – need to exchange experiences and ideas (Grech, 2019), whilst developing a supportive partnership that is based on mutual trust and respect (Polega et al., 2019). This will facilitate educators to solve problems together, which in turn contributes to promoting inclusive education. When good collaboration is in place, it leads educators to monitor student progression thus contributing to an increased response towards the learner's needs (Gates, 2018), whilst giving students a sense of belonging and the ability to feel empowered in facing challenges and risks (Bucholz & Sheffler, 2014). Therefore, collaboration indirectly affects student's learning and development.

Unfortunately, educators do not always manage to create a bond with each other, consequently leading to a tense environment. As barriers build up, communication issues arise (Polega et al., 2019), leading educators to work in isolation. In turn, the education of the students is affected whilst also causing problems towards other stakeholders as one cannot plan (Grech, 2019; Sciullo, 2016) and develop a school approach.

In the scholastic year 2018/2019 Malta introduced the Emergent Curriculum throughout kindergarten classes. This brought about many changes for educators, as this required KGEs to collaboratively set a time to reflect upon observations made regarding students' interests and needs whilst preparing appropriate activities (MEDE, 2020). Working in such an environment could, arguably, pose both an opportunity and a threat to educators as these need to collaborate to be able to plan accordingly; and this is not always easy to do.

Throughout this study the opportunities and threats that arise in the Early Years (EY) classroom shall be identified. Such understanding will highlight the importance of what educators believe collaboration is all about and how it may be achieved positively. Thus, one may then be able to provide proper support and assistance to all educators. Policies can be adjusted to protect educators and support the importance of collaboration by providing ideal guidelines and clearer job roles.

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Personal motivation

With the increasing diverse needs in Malta's classrooms, collaborating with other members can help provide a more fruitful experience for our students (Rouse, 2009). Working as an LSE for numerous years has brought with it a variety of experiences. Some positive experiences involved collaboration amongst educators, promoting a sense of belonging and motivation that led to wanting to accomplish more. Yet, sometimes collaboration was not always present, which caused an inability to perform appropriately, creating a hurdle towards helping the students with a statement of needs (SON) to develop their full potential, while also reconsidering the worth of the career path. It is these experiences that motivated the researcher to study collaboration in more detail.

Defining collaboration

The increased need for collaboration between educators and other stakeholders is vital, as this allows individuals with various forms of expertise to offer creative solutions to each other's problems, hence enabling them to plan for an increasingly diverse society (Merritt, 2016). Today, as the number of students needing assistance increases, schools are encouraged to become more structured to meet the needs of our learners. Consequently, as schools are evolving into a more collaborative society, this is encouraging educators to collaborate to meet the needs of various students found in today's classrooms. Collaborating is about moving away from what Piaget considered an 'egocentrism' towards understanding others' opinions and views (Clarke, 2019). According to Vygotsky (1978), in order to enhance teaching practices one must create a social environment that fosters strengths and builds knowledge and confidence. When educators collaborate with their peers and support each other, this enables them to achieve a higher level of performance, which is known as the zone of proximal development (Vygotsky, 1978). Grotjohann and Bush (2020) mention how in fact educators are more likely to work together when other stakeholders, such as the School Leadership Team (SLT) and Heads of School (HoS), create an environment that encourages collaboration.

Collaboration is defined by Friend and Cook (1992) as two or more individuals interacting voluntarily, working together towards a common purpose and sharing decision making. Collaboration is all about making teamwork successful. It gives educators the ability to learn from each other, which provides better results compared to working on their own (Gardiner, 2010). As stated by Schembri and Sciberras (2020), "It is becoming the norm for two or more educators to be present in primary school classrooms in Malta. This scenario generally includes a teacher

and one or two Learning Support Educators (LSEs)" (p. 184). Working in a collaborative classroom reinforces the building of good relationships amongst class teachers, KGEs and LSEs. It develops a sense of teamwork which provides a feeling of stability, belonging, trust and the feeling of equality towards others in the class. It is a procedure that empowers individuals with various expertise to come together and combine their knowledge to resolve problems (Mitchell, 2015). When educators work individually in the same classroom, they end up achieving much less compared to when ideas and alternative perspectives are discussed and shared, meanings are negotiated, while knowledge and skills are exchanged (Simons & Baeten, 2016).

In the classroom, teachers/KGEs plan for their group of students and have the knowledge of the curriculum, standards and the vision of where students need to arrive. On the other hand, LSEs have the necessary skills and knowledge related to how to adapt, accommodate and modify the curriculum for the student with a SON (Dean, 2014). As mentioned in the National Inclusive Education Framework (MEDE, 2019) a shift is needed from educators teaching traditionally in isolation and having LSEs responsible for their learners to one where these work in a collaborative manner, where knowledge is shared and work is completed in a fruitful manner. When educators plan together, materials should be differentiated and adapted as a team between the teacher and LSE, allowing time for the LSE to prepare adequate materials needed for the student with a SON (MEDE, 2019; Sayeski, 2009). Hence, when planning is done together, both parties know what is intended of each other, creating a successful and fruitful experience of collaboration.

Collaboration is a learned skill and the outcome of the team project will be highly affected by the performance of how one works with others (Moseley, 2009). However, the way we work today can be so intrinsic to collaboration that we rarely acknowledge it even though we might be already doing it. To work in an effective team involves dedication, effort and time (Elleseff, 2014).

For this reason, Grotjohann and Bush (2020) stress that throughout our education system educators must be given the proper training and learning needed to understand the importance of collaborating and how to effectively perform such a task with other colleagues before entering the classroom.

Rainforth and York-Barr (1997) mention how Tuckman in 1965 introduced a four-stage conceptual framework that is one of the most influential and widely applied theories to group dynamics. They mention how groups may easily be formed but sometimes it can take a longer process for

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collaboration to be built on trust. The stages that Tuckman introduced are the following:

- Forming stage this is the initial period in which the groups start to form and each member tries to find their place in the group. Their interaction will also lead to developing the aims and rules of the group.
- ii. Storming stage during this stage conflicts occur among group members as they start to test and explore the boundaries of the group. The clashes will lead to the formation of roles and hierarchies and will also aid members to recognise other strengths and weaknesses in their personality.
- iii. Norming stage throughout the norming stage educators start to feel relaxed and unity is formed. Here they identify new ways of working together.
- iv. Performing stage this is when educators become successful and learn more versatile methods of collaboration.

There may also be:

Adjourning stage, also known as the mourning stage – throughout this stage the former group team changes for some reason. The reason for the change may include members joining or leaving the group.

Although the model of Tuckman does not indicate how long each stage will take to be achieved, educators can easily become caught in a particular stage whilst some stages may be eliminated. This can also lead to team collaboration failing to transition from the storming to the performing stage (Rainforth & York-Barr, 1997). Every person has their own ideas, qualities and interests that help motivate them, so as a team they must work to find each other's motivator. Everything comes with its advantages and disadvantages and collaboration may not always be possible if the team dynamic becomes dysfunctional.

There are six models of collaborative co-teaching methods that enable teachers to avoid solo teaching and encourage collegial relationships (Peacock, 2016), hence showing stakeholders that being motivated to work in a team enables them to interact and be creative together whilst having the possibility of better outcomes. The six collaborative models are: i. team teaching; ii. one teaches, one observes; iii. station teaching; iv. parallel teaching; v. one teaches, one assists; and vi. alternative teaching.

Characteristics towards better collaboration

Research has shown that trust, dedication, guidance and encouragement contribute to effective collaboration between educators (Liu & Tsai, 2017). Through open communication members can understand where they belong and what each other's roles are. Working as a team allows educators to learn how to work collaboratively, view others' different perspectives, while also assisting one another and engaging in a combined partnership (Baeten & Simons, 2014).

When teams communicate they get to exchange knowledge and put ideas into perspective (Carter, 2018). Collaboration works well when positive communication is present and thus relationships may function properly. Honesty and trust are other vital components that go hand in hand with communication, as without them collaboration can easily fall apart. Knowing that trust is present motivates one to work harder, think outside the box to accomplish a task and be confident to freely communicate with others honestly (Reina et al., 2017), co-plan (Banks, 2018) and most importantly reduce the amount of stress by having each other's backing (Dee, 2012). Buckley (2020) states how collaboration requires "willingness to risk change and even failure, humility, open-mindedness, imagination and creativity" (p. 2493).

For successful collaboration to work at its best Lohmann and Hogan (2012) describe how giving feedback, especially criticism about one another, helps improve performance. As teams consist of individuals, the latter function much better when they recognise and develop their own emotional and social intelligence. According to Hughes and Terrell (2015) the TESI report helps provide teams with the tools necessary to recognise and comprehend their strengths and limitations for better collaboration while promoting further development of their skills. The Team Emotional Intelligence assessment is the first scientifically based survey that was introduced in the world. There are seven characteristics that lead to successful collaboration in a team. The following are the characteristics as identified by Huges and Terrell (2015).

- i. Team identity this characteristic helps to develop a sense of belonging amongst team members, a positive attitude to work collaboratively, and each member has a clear vision of what their roles are (Grech, 2019). Groups that have a strong identity tend to also have a strong devotion to the team and a vigorous loyalty towards each other.
- ii. Motivation the energy and responsibility levels of the group are linked to the motivation of the team and depends on whether the

competition is helping or working against the team. To create a motivated team one needs to be aware of the desires of the group, set idealistic goals, appreciate their success, be determined and persistent (Theirs, 2017). As mentioned by Thoonen et al. (2011) motivation increases collaboration in the same manner that collaboration boosts motivation.

- iii. Emotional Awareness when team members pay attention to each other's feelings and emotional wellbeing they would be able to understand and respect those feelings. This will create a high level of emotional awareness in the group. This emotional awareness is a very important feature that affects motivation, efficiency and team collaboration, thus leading to a successful team (Cox, 2011).
- iv. Communication listening to one another creates positive teamwork, boosts participation and encourages discussion of sensitive topics (Dave, 2019). Communication in the group will aid team members to give and receive advice and criticism and also guidance to each other.
- v. Stress Tolerance a balanced stress tolerance within a team helps to alleviate the pressure of the workload, time restriction and be able to create a positive work-life balance (Lino, 2020).
- vi. Conflict Resolution conflicts may easily arise within a team and it is ideal to deal with such conflicts positively and not remain absorbed in them (Sciberras & Schembri, 2020). When conflicts are resolved, the team would be able to function properly and be more productive and creative (Segal et al., 2020).
- vii. Positive Mood when the frame of mind of the team is positive this creates the basis for encouragement and reinforcement, a sense of humour and a higher probability of success. The 'cando' attitude is the energy that drives the team (Lino, 2020). Positive environment and attitude are a major factor in the team's flexibility and determination.

Opportunities in collaborative practice

Collaboration is about building a relationship with colleagues. Getting to know one another at a personal level creates a deeper sense of respect and loyalty to one another. This bond enables educators to unite and exchange knowledge, tools, ideas and resources that make teaching

further accessible (Davis, 2020), whilst giving motivation to educators to want to accomplish more. Working in a collaborative atmosphere reduces the amount of teacher isolation and traditional teaching practices (Polega et al., 2019). Dean (2014) and Davis (2020) mention how, when educators plan together, this offers them the chance to communicate and connect bringing forward the possibility to promote creative ideas, whilst enabling them to explore new territory and develop resources for lessons. Using different angles to approach various topics helps increase the quality of education (Buckley, 2020). Once educators start collaborating effectively they will feel connected, create trust and improve the school atmosphere (Minero, 2015).

Throughout ongoing training LSEs are given the knowledge how to adapt and cater for students with special needs (Grech, 2019). During these courses they are taught different approaches on how and what works well with different disabilities. On the other hand, in certain circumstances, teachers/KGEs do not always know how to work with a student with a SON, but have the training and knowledge on how to implement the curriculum (Garderen et al., 2012). Due to not having the proper experience to deal with different disabilities Hodgson et al. (2011) note how teachers/KGEs may not understand how to accommodate and modify their efforts for their students' needs. This is when collaboration and communication are vital between the teacher/KGE and LSE. As each individual has their own ideas and perspectives, by planning together each individual can show their expertise, where creativity is enhanced and ideas evolved into creating instructions that are more accessible for all (Peacock, 2016). Therefore, together they will be able to tackle the various learning styles in the classroom while solving problems together (Minero, 2015). The modifications brought about by this collaboration can also help to reduce the number of students who encounter difficulty and need referral, thus increasing the amount of time the educator can dedicate to those who need more assistance.

Collaboration boosts self-confidence as it gives educators a chance to share decision-making when addressing needs (Buckley, 2020). Double groups in the Maltese kindergarten setting have the capacity of more than 20-24 students aged three to five. By having educators work collaboratively, demands can easily be reached. When taking on equal roles, each educator can work with a group of students, share responsibilities and thus offer more individualised attention and guidance to each student (Peacock, 2016). Agius Ferrante (2012) mentions how planning in advance can enable the LSE to prepare the necessary work and adaptations needed, thus giving time to discuss ideas or concerns with the teacher/KGE.

When HoS pairs teachers/KGE with LSEs who have a common philosophy

of education and style of teaching, this would possibly increase their chances of successful collaboration (Sciullo, 2016).

To develop the Individual Education Plan (IEP) educators often join forces to help the student reach their full potential by creating the perfect atmosphere in the classroom. This is done by having educators collaborate with each other, overcome obstacles and plan together (Mofield, 2019). In fact this is mentioned in the job description for teachers as indicated by the Ministry for Education (formally known as MEDE) of May 2020: "Together with the Learning Support Assistants, developing and implementing the Individual Educational Programme (IEP) of students with Individual Educational Needs and participating in IEP" (p. 3). Thus teachers/KGEs and LSEs should collaboratively develop the IEP and be able to work collaboratively to implement it.

Collaboration is not only beneficial for educators but it creates a welcoming environment for all students. Griffin et al. (2008) point out how collaboration strengthens trust between educators while contributing to the creation of more innovative ideas to enhance student success (Rouse, 2009). In addition to improving higher reasoning skills in students, role modelling collaborative behaviour has proven that it improves students' motivation to learn, respect one another and improve their self-esteem (Gates, 2018; Villa & Thousand, 1992).

Threats that arise in a collaborative practice

Unfortunately, even though the world is evolving and classes need more collaboration between educators to create a healthier environment, not all educators are able to achieve positive collaboration (Grech, 2019).

As the new scholastic year approaches, teaching teams (teacher/KGE placed with an LSE) are chosen by the HoS (Parsons & Stephenson, 2005). While educators prefer to choose with whom they can work (Holsey, 2009), the HoS's choice may sometimes lead to educators feeling unhappy with whom they are placed. In some Maltese State schools, kinder classrooms consist of two KGEs (double classes) that are expected to team teach together while sometimes also having one or two LSEs in the same class. Having this number of educators in class can cause conflict of personalities. attitudes, ideas in how classes should be organised, and most importantly different teaching styles (Holsey, 2009), leading to unsuccessful collaboration. Agius Ferrante (2012) concludes that if educators do not see eye to eye and do not work hand in hand on an ongoing basis, this will interfere with their work, disrupting any collaborative efforts. When planning teams HoSs should take into consideration the personalities of the staff to avoid as many divergences as possible. As Maltese schools start the scholastic year in September many HoSs inform educators with

whom they are assigned to work on the first day of work. As students start school two days later, Minero (2015) and Mulholland and O'Connor (2016) note how this can cause educators to have insufficient time to get acquainted with one another, a fact that can easily cause the formation of barriers between them.

In many instances the class teacher/KGE believes that they are the leaders of the class (Dean, 2014) as teaching is done by them in their classroom (Peacock, 2016). This dominance leads to LSEs being viewed as assistants, or persons responsible for students with a SON only (Agius Ferrante, 2012; Peacock, 2016), who sit beside these students at the back of the classroom (Banks, 2018). This issue can lead to lack of collaboration as the teacher views the LSE as being less qualified and less capable than them (Lohmann & Hogan, 2012). This can cause conflict between educators, due to the transmission of a sense of inferiority and ingratitude towards the LSE's abilities (Emira, 2013). Emira (2013) mentions how the LSE needs to be valued, and not put off by members of staff or students, who hold that this is not a teacher. Such negative comments should thus be avoided.

As in Malta LSEs are employed without any prior experience in the field, they end up facing many challenges (Grech, 2019; McLachlan & Rodgers, 2012). McLachlan and Rodgers (2012) mention how LSEs need to learn what their duties and responsibilities are and how to work to generate an inclusive class by gaining prior training. Despite their work conditions LSEs end up doing other jobs that do not fall with their designated responsibilities (Devecchi et al., 2012). Each individual is unique and have their own teaching styles, which can lead to diverse challenges in the classroom. Throughout Maltese schools the LSEs change the classroom setting every year, hence being with a different teacher/KGE. This means that the LSE needs to adapt to the current rules and environment of a different teacher. One needs to keep in mind the considerable amount of time it takes to establish an enduring relationship with the class teacher/KGE that is built on trust (Liu & Tsai, 2017).

As educators spend most of the working hours at school with their students, this leaves little time to accomplish other tasks. Planning is an important factor for which educators have to dedicate enough time, as both the class teacher/KGE and LSE need to prepare the best resources for use with their students. Peacock (2016) and Devecchi et al. (2012) emphasise the problem of lack of time educators face to be able to address all issues connected with collaboration and planning with one another in order to successfully establish a positive collaborative environment for all (Liu & Tsai, 2017).

Another threat that may arise in the classroom is created when LSEs overstep their teaching role without the guidance or acceptance of the

class teacher thus leading to the encroachment of boundaries. This may eventually cause conflict within the team.

In Malta KGEs and LSEs have the same salary depending on acquired qualifications. The disparity in qualifications and the actual nature of the job, pay and work standards can contribute towards each feeling that their work is not appreciated (Devecchi et al., 2012).

Another challenge that LSEs may face is when teachers, for various reasons, are reluctant to assist in the planning of tasks or IEP of the student with a SON. As the signing of the IEP, a legal document, binds all stakeholders included in the students' life, this makes class educators and KGEs responsible for ensuring that the IEP specifications are met (Birdwell et al., 2016). Agius Ferrante (2012) mentions how research indicates that the implementation of the IEP should be done by both parties and not solely by the LSE, with the class teacher/KGE then approving it just before the meeting.

The research design

The present study aims to explore the views and understanding the experiences of teachers, KGEs and LSEs with regard to collaboration, thus a qualitative research approach was deemed appropriate. Ary et al. (2014) mentioned that qualitative research enables one to understand situations by concentrating on the holistic picture instead of breaking this down into graphical data. This study is a case study, which allows the researcher to analyse data gathered within a particular context and clarify the dynamics of real-life circumstances that are not possible to identify through laboratory study or by using quantitative analysis. The data was collected through interviews with educators who work in an EY setting. Interviews also enable the researcher to gather accurate evidence faster and in larger amounts (Ary et al., 2014). These interviews aim to explore the beliefs and understanding of the participants and give meaning to that experience with regard to threats and opportunities that may arise due to collaboration (Banks, 2018). In using a qualitative approach, semistructured interviews enable the researcher to dig deeper, whilst also understanding and gathering verbal/non-verbal gestures (Green, 2017) relating to how educators feel about collaborating with one another. A qualitative approach allows the researcher to get detailed insight into an individual's personal feelings, and opinions, hence allowing the researcher to ask more detailed and open questions, resulting in an in-depth understanding of all educators' views (Peacock, 2016), thus concentrating on the insight experiences and knowledge of the participants (Grech, 2019).

The research participants

This research was conducted using a qualitative method, where educators volunteered to be interviewed to help acquire a better understanding of collaboration. The selection process required educators to have more than five years of experience working in a collaborative classroom. This experience is important as it enabled the educators to provide a better view and understanding of their experience in a class whilst working with different educators and professionals throughout the years. As stated by Creswell (2012) the participants "must be individuals who have experienced the phenomenon being explored and can articulate their conscious experiences" (p. 111). Participants were educators who work in the same EY state school. The sample size of this qualitative study included eight participants and was recruited through purposive sampling. One educator from each year group from Kindergarten One to Year Two was needed for the interview to help the researcher get a better understanding of how educators perceive collaboration, especially due to the different demands each year faces. Four LSEs who work in the EY sector were also chosen to get a better understanding of their opinion about collaborating with the class teacher/KGE.

Creswell (2008) mentions how qualitative studies typically focus on a few participants. Doing eight interviews only provided a restricted sample of how educators in the school perceive collaboration and while this will not provide an accurate understanding, yet it is enough data to describe collaboration with some clarity. To ensure participants' confidentiality each educator was assigned a pseudonym.

Pseudonym	Educator	Years of Experience
KGE 1	KGE	33 years
KGE 2	KGE	10 years
Y1	Year 1 educator	12 years
Y2	Year 2 educator	15 years
LSE 1	LSE	15 years
LSE 2	LSE	10 years
LSE 3	LSE	6 years
LSE 4	LSE	16 years

Table 1: The research participants

The interview

Data collection is considered important in any form of research study. Throughout this research the ideal way to gather and understand the educator's perceptions was through semi-structured interviews. According to Ary et al. (2010) interviews are the most commonly used and simple way of gathering qualitative data. The advantage of having semistructured interviews is that they enable the interviewer to plan several questions that need to be asked whilst having the possibility to elaborate more on the given responses thus accumulating a wealth of data (Grech, 2019). Oral responses from the interviewee enable the researcher to gather more in-depth responses compared to information provided from just a written response (Adams, 2015). The interview questions asked educators about the opportunities and threats when working with others in the classroom setting. Open-ended questions were used to offer the interviewee the chance to elaborate further about experiences garnered while working with others (Phillips, 2016). Questions were kept as clear, easy to understand, short and simple as possible so as to facilitate more precise responses.

Due to the situation created by the COVID-19 pandemic, as this study was carried out during this time, the interviewer and interviewee discussed the best location and time according to the participant's preference and circumstances. Online technology was also used to conduct interviews so as to respect social distancing. Each interview took between thirty to forty-five minutes, depending on the depth the interview reached, and the responses were recorded with the interviewees' permission.

The next chapter will address data presentation, with an analysis and discussion of the research findings, focusing on themes that emerged from this research.

Data presentation, analysis and discussion

The research questions that guided the researcher through this study were:

- i. What are the teachers', KGEs' and LSEs' perceptions on collaboration in the EY classroom?
- ii. What are the threats that educators face through collaborative practice in the EY?
- iii. What are the opportunities which arise from collaborative practices in the EY?

The four major themes that emerged throughout the coding process are:

- 1. Educators' perceptions towards collaboration
- The characteristics of collaboration.
- 3. The threats that arise throughout collaboration
- 4. The benefits of collaboration

1. Educators' perceptions towards collaboration

Collaboration for this study is defined as a group of two or more individuals who interact together having a common purpose in mind (Friend & Cook, 1992). When all participants were asked to define collaboration, in their own words they corroborated this definition. Working collaboratively, as pointed out by two participants, enables educators to give their hundred percent towards teaching. LSE2 mentions how "it is important in our job". The common understanding of what collaboration means, as mentioned by the majority of the participants, was working as a team, sharing knowledge and valuing each other equally, while keeping in mind each other's role and hence creating a sense of stability. More is achieved when educators have the same intentions and goals in mind (Peacock, 2019). All participants addressed collaboration as being a positive step towards student achievement where Y1 added how "lack of collaboration does not allow us to give our utmost to our students".

The educators were asked if they preferred working in a collaborative environment. Here, all participants expressed how they prefer working collaboratively as all stakeholders will benefit from this, different ideas are shared out and more energy is dedicated towards the students (MEDE, 2019). LSE3 mentioned how "my job is not a solitary approach". It seems that collaboration is something all educators favour, apart from one participant who in the year of the research had been working in a single group. She mentioned that if given the choice she would prefer having fewer students in class and working on her own than being in a double group.

For collaboration to succeed Y2 stated that "when working with educators they first learn your strengths, your flaws and you learn their strengths and weaknesses. You build a relationship". This correlates with Tuckman's model (1965) where stages are set in building a relationship (Beddies-Jones & Miller, 2004). KGE1, KGE2, Y1 concur by mentioning how good relationships are formed over time and not just over a few weeks. It seems that all participants had a good understanding of what collaboration

means, and as outlined by Vygotsky (1978) many expressed how getting to know the character, qualities and interests of their colleague enables them to gain more confidence in each other while improving their performance in class. Hence it seems that they all agreed that collaboration leads to all students and other stakeholders benefitting in having a positive classroom atmosphere and learning experience.

Many educators felt that if the HoS gave educators the chance to choose, they would prefer to suggest with whom they best work, or to the contrary, as mentioned by LSE4, with whom they do not wish to work. LSE2 felt that "Being paired with someone you cannot collaborate with can cause stress and anxiety". These findings support Holsey's (2009) claim on the importance of comparability when pairing. Many mentioned how when relationships are already formed, one has already gained the experience and foundation for a successful team. Yearly changes would mean starting over again.

Collaboration with the SLT

The findings of this study show that according to the majority of LSEs and KGEs, they do not find much support from the SLTs. KGE1 mentioned how "you always have to fight for your rights," while KGE2 mentioned how "it depends on how the situation was handled". LSE1 mentioned how "it is more a one-way system". On the contrary, Y1 and Y2 indicated that depending on the situation they always had backup and full support from the SLT and HoS. LSE3 mentioned how it seemed that "preference and support seem to be given to the teachers/KGEs before LSEs". To enable good practice and encourage collaboration throughout the school, SLTs and HoS need to set an example to eliminate any injustice (Grotjohann & Bush, 2020).

Collaboration with parents

Collaboration with parents enables educators to assist and guide the students (Mitchell & Furness, 2015). When asked how they collaborate with parents, all participants mentioned the use of a communication book or an A5 folder as a means of communication. LSEs participants mentioned the use of a contact book where they frequently gave feedback regarding the student with a SON. However, many mentioned, though, how it seemed to be a one-way system where only they wrote and never got feedback from the parents unless strictly necessary.

Throughout the COVID-19 pandemic educators started to use Microsoft Teams® as a new platform for their online teaching. This new era of teaching has provided an open communication channel between educators and parents (Schembri & Sciberras, 2020; Mansys, 2020). All

participants mentioned the benefits this has brought about, enabling more communication with the parents throughout and after school hours. Educators mentioned how they are at liberty to answer after school hours and do not mind this when the parents involved are willing to collaborate. All educators agreed that when they had good collaboration with the students' parents, the students benefitted. An important factor that many participants stressed was the keeping of boundaries with parents. They felt that one must always keep in mind not to overstep into a different role and that whenever matters arise, the SLT must be notified.

2. The characteristics of collaboration

Many factors contribute to building good team collaboration. As mentioned in Educators' Guide for Pedagogy and Assessment (Ministry for Education and Employment, 2015), early childhood pedagogy in the EY should be a collaborative effort among all stakeholders, including the teachers/KGEs and LSEs. This section will outline collected data aligned with the seven characteristics mentioned by Huges et al. (2015) whilst also including the core ingredient of trust as outlined by Lui and Tsai (2017). All participating educators were asked about what they believed were the main characters of good collaboration. All of them mentioned how trust and communication were vital characteristics. According to LSE1 "trust is essential and communication is necessary, only then can collaboration start to take place".

Trust and communication

Instilling an environment of trust and open communication with those you collaborate with is of great importance. As mentioned by KGE1, Y1, Y2, LSE1, LSE2, when going to work they feel like going to their second home. LSE2 mentioned how "trust provides a sense of stability", as has been outlined by Grech (2019). Schembri and Sciberras (2020) suggest that collaboration between teachers/KGE and LSEs, where a common goal and the planning process is shared, can make teaching a positive experience even during difficult times, such as the COVID-19 pandemic. Participants used repeated keywords such as trust, communication and respect, throughout the interview. Being able to openly discuss with one another allows ideas to be shared and contributions to be given (Baeten & Simons, 2014). Carter (2018) outlines the importance of knowing that input given is being acknowledged and this was mentioned by Y2 and LSE1. LSE4 mentioned how with good communication in place, a positive mood is enhanced "which will reflect on the teaching of the students", while KGE1 noted how "with just a simple look or stare we could communicate and understand one another". Here one appreciates how the importance

of trust and communication come together to enable educators to build a solid foundation for the team, hence enabling the group to create an identity whilst supporting one another (Dee, 2012). All educators believe that to have a sense of belonging the team's foundation needs to be built on getting to know one's character, that is, a person's strengths and weaknesses. When expressing negative experiences all educators mention how when a lack of communication existed this led to an unsuccessful collaborative environment.

Trust and communication are not only important with whom we work but, as participants mentioned, it is also key when dealing with parents. Y2 mentioned how during the first weeks of school she "works hard to gain parents' trust" in order to build a good relationship. From there on parents are willing to comply with whatever the educator needs

Motivation and positive mood

Working towards a common goal requires motivation and a positive atmosphere on the part of all educators so as to enable the goal to be achieved successfully. When having trust and communication in place, KGE2 expressed how "the benefits affect not only ourselves but also our performance". She stated that by "collaborating well, we are happier to go to work and we did more work, the work was better". As outlined by Thoonen et al. (2011) motivation increases collaboration in the same manner that collaboration boosts motivation. Many participants expressed how being motivated and having a positive relationship with educators positively affected the students (Gates, 2018; Villa & Thousand, 1992). LSE2 mentioned how the students' behaviour improved and they achieved more. This shows that when the participants worked in a positive collaborative atmosphere they cared and respected one another, which created a sense of belonging. Hence having a positive mood increases one's motivation to want to accomplish more and increase the benefits for everyone involved.

Conflict resolution and stress tolerance

When having different characters in a class, conflicts may arise which in turn bring about stress. Collaboration is about learning how to deal with issues appropriately. KGE2 and LSE1 mentioned the importance of being able to express concerns in a constructive way (Lohmann & Hogan, 2012) facilitating the team to continue to work and achieve their common goals (Segal et al., 2020). LSE2 mentioned the "importance of being an active listener to one another". This enables colleagues to feel that they can express any concerns in a way knowing that other educators will do their

utmost to assist you. LSE4 expressed how especially during the difficult times of the pandemic one needed to help and support their colleague while having each other's backing.

Team identity and emotional awareness

Working as a team enables members to feel a sense of belonging. When our roles are valued and the team respects, understands and appreciates the emotions of colleagues, collaboration can take place. LSE1 mentioned how "the teacher would make me feel that I belonged. My suggestions were valued". Y2 stated how when working with educators the LSE first "learns your strengths and your flaws and you learn their strengths and weaknesses. You build a relationship". Collaboration is not created in just a few days but a strong team identity is built over time, as outlined by Rainforth and York-Barr (1997). LSE2 also mentioned the importance of "being active listeners" and respect being vital in building collaboration. Unfortunately, when collaboration does not develop in the class environment many mentioned how this situation affected their emotional wellbeing, leading them to feel upset at work, sometimes also making them feel incompetent in their job.

3. The threats that arise throughout collaboration

When working with others it does not necessarily mean working in a team. Several things can make the class environment and teacher/LSE relationship unsuccessful. As educators lose autonomy and self-reliance, this impinges on the gain that can be had from collaboration.

Work intensification

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One reason why collaboration works well derives from the contribution of sharing responsibilities – reduction in workload and having one's back. Many expressed that when collaboration was not present it resulted in having a chaotic atmosphere in the class. Collaboration cannot work if the other member has a different agenda or perspective on what the goals and aims are. Common barriers to collaboration mentioned by the interviewees included having different goals, poor communication, different approach/style to teaching, different agenda or mindset, lack of commitment, only caring for their self-being, lack of respect especially towards the LSEs' profession as outlined by Dean (2014), or when the LSE oversteps boundaries. KGE2, Y1, Y2 also complained how some only come for the salary and do not want to take any responsibility. Y1 mentioned how they "plan to do something and then the other person does not come to work". KGE1 and Y2 mentioned when colleagues have the impression that only what they do is correct; this leads to the erection of 'walls', and any

form of communication given by the participant is unnoticed or falls on deaf ears. This lack of collaboration affects the students emotionally and also academically as noted by all participants. Y1, Y2 and LSE4 mentioned how students can sense when educators are nervous or when something has happened.

On the same note from an LSE's perspective, LSE1, LSE2, LSE3 and LSE4 commented how when there was a lack of commitment on the part of the teachers/KGEs, everyone suffered. LSE2 pointed out that she lost her respect for the teacher as the latter had a different mindset, and thus they were not able to collaborate. This corroborates Lohmann and Hogan (2012) and Emira (2013) narrative who underline that this can cause LSEs to feel a sense of inferiority as others consider them as being less qualified. On the contrary, even though there was a lack of collaboration, LSE4 admitted how "it emotionally made me stronger and more focused towards the student".

Unfortunately, even though collaboration has many benefits, not everyone can see this. As outlined by Minero (2015) and Mulholland and O'Connor (2016), educators might not have been given enough time to get acquainted, causing barriers to form due to misunderstandings which in turn cause educators not to give their utmost to the students and their job.

Curricular planning

Another area of concern was how the planning of the weekly curriculum and activities is done solely by the teacher/KGE with no input from the LSE. Even though as a year group all teachers assist one another to build the scheme of work, it seems that the class teacher/KGE do not plan with their LSEs every week. As the emergent curriculum entails planning between educators, KGE1 and KGE2 mentioned that having non-contact time once weekly enables them to plan together with the other KGE, but unfortunately the LSEs are not able to attend. This agrees with Devecchi et al. (2020) and Peacock (2016) when they indicate how educators have less time to address issues. On a positive note, though, interviewees did mention how they still sometimes discuss their planning with the LSE. While the researcher discussed this topic with the LSEs, all LSEs mentioned that when working in a challenging collaborative environment, the weekly planning was never given on time, which led to repercussions that affected their teaching and being unable to appropriately plan the necessary adaptions for the student with a SON.

Individual education plan

It is interesting to note how when speaking with LSEs they all mentioned that it is a very rare occasion when educators help out in designing and implementing the student with a SON IEP, which contradicts what Mofield (2019) said. Apart from not helping in the write-up, LSE1 and LSE3 also mentioned how on occasions educators hardly contributed or participated throughout the meeting with parents. LSE2 mentioned how throughout her years as an LSE she can only remember one time where the class teacher assisted her where they "first saw the student's strengths and needs and then together designed the goals". LSE4 mentioned how assistance was only given due to being close friends.

From a class teacher/KGE point of view, KGE1, KGE2, Y1 mentioned how usually the LSE does the foundation of the IEP and once complete, together they would go through and amend it. KGE2 mentioned how it depends on the LSE's character and how experienced she is. She added that, "If the LSE prefers to do the IEP by herself and I know that if I intervene she will feel like I don't trust her, then I let her do it, then I correct it". Y2 mentioned that throughout her working career she has mainly had inexperienced LSEs and thus she had to mainly design and implement the IEP on her own. Only when the LSE was trained did she just give her opinion and goals. This contradicts with the job description of teachers/KGEs which says that they need to develop and implement the IEP together with the LSE (MEDE, 2020; Mofield, 2019). On the contrary, this agrees with Agius Ferrante's (2012) research where she mentions that class teachers/KGEs only approve the IEP right before the meeting. When asking educators on whom does the responsibility of the student with a SON falls, all participants mentioned that it is the responsibility of both educators. Taking into consideration educators' perspectives, the LSEs' reaction was one of annoyance as every educator has their job profession and description where at the end the student is the responsibility of all educators. So, to this end, both the class teachers/KGEs should find the time to sit and set the goals with the LSE.

4. The benefits of collaboration

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Collaboration creates relationships with others. It enables educators to work together sharing knowledge and expertise while empowering educators to want to continue to strengthen their practise. Collaboration creates a sense of belonging while reducing isolation (Grech, 2019; Mitchell, 2015; Polega et al., 2019). In collaborating, educators contribute to the improvement of the school and the student.

Sharing decision making and teamwork

Working together as a team provides many benefits for the educators and hence also for other stakeholders involved. While discussing what benefits collaboration brings, the interviewed educators indicated sharing of ideas, feeling less anxious, having their opinions valued, more productivity and respecting others, as also outlined by Davis (2020). Six participants mentioned how, with more educators, there are double the ideas, creativity, interactions and excitement. Hence also the class workload can be divided between others, thus enabling the teacher/KGE to distribute the burden and reduce stress. As the number of students in the class on average is 24, KGE1, KGE2, Y1, Y2 felt that when collaboration is in place, more educators meant more support. While all educators experienced having more than one LSE present in the class, all expressed satisfaction for the positive atmosphere they had (Minero, 2015) and how, when possible, everyone worked hand in hand to share the workload (Peacock, 2016). Y1 mentioned how "the presence of the LSE enables me to help other students individually while the LSE coordinates and controls the class". All LSE participants mentioned how when the teacher/KGE shared responsibilities with them they felt valued. LSE2 and LSE3 said that when the teacher/KGE used station teaching, it gave them a sense of pride and self-confidence (Buckley, 2020) and students witnessed both professionals working as a team.

Collaborative planning

Planning is vital for all educators as it prepares a sequence of actions for goals to be achieved. As mentioned by many participants, when having time to discuss, more opinions are given. When LSEs were asked to describe the benefits of positive collaboration, all emphasised how they felt prepared when teachers/KGEs informed them about prior plans regarding subject matters or other activities. LSE4 referred to her planning as being "better guided". LSE1 mentioned how it gave her more time to prepare resources and hence be able to discuss any difficulties beforehand with the teacher/KGE (Agius Ferrante, 2012). This shows that when LSEs had good collaboration and were included in daily suggestions, they all felt included and their profession valued.

On the same note as LSEs, teachers/KGEs mentioned how they benefited as LSEs were able to give them input on how to arrange certain tasks to be able to accommodate for the student with a SON. Y1 mentioned how when she was doing a particular task that she thought the student cannot handle, the LSE's input would be sought on the matter. This agrees with Grech (2019) who writes that LSEs know how to adapt and cater for the student with a SON. This research revealed that communication

is beneficial for educators to plan well, whilst seeking input from one another to accommodate appropriately the student's needs.

Benefits of collaboration for stakeholders

As previously explained, it is not just the educators who benefit but also other stakeholders involved. Throughout interviews, all participants mentioned how the students benefited most when collaboration is in place. It seems that all agree that students come to school happier, feeling safe and loved while, as mentioned by most educators, students participate more and are better behaved. Y2 mentioned that "when having such a tranquil environment it helps them to feel secure and confident and it is only then that children start to learn". Many expressed how the classroom climate impacts the social and emotional wellbeing of the students. It is not just the kids who benefit but also the parents. KGE1 and Y1 noted that when parents see their children entering school happily, they at once know that there is a good environment in class. Educators also mention how fewer problems in the class meant less stress and difficulties for the SLT.

Some suggestions and recommendations

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While collaboration plays an important role in our classrooms, many educators are still unfortunately unable to do so. To better understand how educators perceive collaboration further research observations in the classroom should be taken up.

As participants for this study were all from the same State school, future research in other state schools in various areas around Malta is suggested so that other perspectives and realities may be studied and understood. Moreover, besides State primary schools, research can also be carried out in Church and independent schools. This will help researchers to gain a wider view on how different school setups influence and impinge on the element of collaboration.

Another suggested study would relate to the definition of the various educators' roles and the implementation of the IEP as a team. Including the opinions of the SLT regarding collaboration would also be relevant to such a study.

Regarding recommendations, it is widely accepted that collaboration between educators has become ever more critical (Sciullo, 2016). In line with the feedback gained, it is suggested that the school should offer more team-building exercises so as to help educators build more confidence, hence getting to know one another whilst also exploring methods on how to mutually help and support each other. According to Banks

(2018), educators need to develop a set of guidelines for collaboration and address concerns, interests and discuss intentions and goals for each other to work in a collaborative environment together. The school administration should implement training throughout the Community of Professional Educators (CoPE) sessions that would include understanding the philosophy and mindset of collaboration.

Throughout the interviews, many participants recommended that training courses, institutes and universities should include a module that focuses on the necessity of training educators to collaborate. With demands in the classroom constantly changing and increasing, working in a collaborative culture is of great importance, and so these courses can enlighten those attending them about the foundations and importance of collaboration. This would serve as a basis for future educators to develop new knowledge, skills and ideas that enable them to work towards collaboration in the classroom. These courses should also concentrate on introducing students to the various obstacles they may come across throughout the collaboration process and how to overcome such difficulties as these can otherwise become overwhelming. Rainforth and York-Barr (1997) and Gentry (2012) mention how only a few programmes offer training or opportunities that equip learners for a genuine collaborative service.

To achieve a collaborative environment in the classroom, policymakers need to make available a clear and detailed description of each educator's role, hence providing those employed in the educational sector with a clear understanding of what is and what is not expected of them.

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The teachers' perception of the use of the Universal Design for Learning in inclusive primary school classrooms

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Introducing Universal Design for Learning

The Universal Design for Learning (UDL) is a framework for teaching and learning established by the Center for Applied Special Technology (2014). The UDL is described as a framework that progresses and enhances teaching and learning for all individuals. Moreover, Novak and Rose (2016) state that UDL allows teachers to remove learning barriers by giving them voice and choice. The UDL cannot be effective if inclusion is not existent. Inclusion is an essential issue, as it values the diversity of every individual. When inclusion is present, and UDL is applied, students are given opportunities to develop their potential. As Meyer has put it, "UDL provided an approach for designing learning environment that support high expectations and results for all students" (2014, p.12).

The Inclusive Education in Schools, Route to Quality Inclusion policy (Ministry for Education and Employment, 2019) specifies the significance of the fact that the school environment identifies, acquires, and celebrates all the strengths of the students. Furthermore, when inclusion is active, it supports each child individually, hence they feel that they are integrated well in the school environment while they can achieve their goals. An agenda was created regarding lesson preparation and how educators produced lessons that are inclusive for different ability learners (CAST, 2014). Specifically, inclusion is the procedure of decreasing barriers to contribution and integration. The practice of inclusion and even the use of UDL present their own challenges, but these can be surmounted. Moreover, if UDL is implemented correctly, it has many benefits and strengths (Martin, 2016), which will outweigh the obstacles.

According to the UDL principles, it is significant that the curriculum should not be based on a one-size-fits-all approach, but it should be modified and altered according to the children's necessities. The UDL introduces the teacher to three principles.

- i. The first principle is the *Multiple Means of Representation*. "A universally designed syllabus demonstrates to students the built-in flexibility of course learning and achievement" (Kennette & Wilson, 2019, p. 3). This principle emphasises the significance of information given in different ways, such as visuals, PowerPoint presentations, and hands-on activities. Learners must have the opportunity to access a range of presentations since each individual varies in the way they learn (Smith, 2012).
- ii. The second principle is the *Multiple Means of Actions and Expression*. Kraglund-Gautheier et al. (2014) affirms that

students need to be offered different options to demonstrate their understanding. It also motivates the educators to be more sensible and attentive to the students' uniqueness; consequently, students are able to choose their best learning style.

iii. The third principle is the *Multiple Means of Engagement*. Although it can be challenging to keep students engaged through the lessons, they must remain actively involved to learn more

As soon as the student feels more confident in the chosen learning style, the learner's motivation and incentive increase. Educators must assess and provide various ways to teach the same concept so learners can make correlations to the learning occurrence (Martin, 2016).

These principles aim to offer education entitlement for all the students despite their impairments. UDL also encourages inclusive methods and techniques that can be practised at school. Therefore, all children are assisted in their capabilities successfully, and their life at school is beneficially enriched. Preferably, the way tasks are introduced should differ from the traditional methods the students were not involved in (Jhangiani, 2017).

When teachers apply the UDL approach, they can reach all students regardless of ability. Teachers must always keep in mind that students are very diverse learners. They must be aware of the students' different skills and modes of learning so that they can address their needs and enhance their strengths, whilst keeping them interested and motivated to be able to reach their full potential. Martin (2016) underlines the importance of applying the UDL appropriately, as it encourages and stimulates the students to be more engaged, strengthen their learning and offer full access to the subject. Furthermore, through the use of UDL, the curriculum can be accessible for all the students. This can be done through modifications, different forms of assessment, as well as adequate support. The National Curriculum Framework (2012) encourages a student-centred approach, primarily for all students to receive their just educational entitlement. Thus, the way forward is for educators to attend to and encourage learners more so that they are more involved in their learning (MEDE, 2019).

The primary purpose of this study is to present the perception of Maltese teachers on the use of UDL and how these relate to the inclusive primary school classrooms. This is a qualitative study investigating and analysing the core components essential for true inclusive practices as a social

phenomenon within the context of the school. The motivations informing this study are based on personal experiences of practices that may not be truly inclusive. The following research questions have guided this research.

What awareness do teachers have about the use of UDL in class?

What is their opinion of such an approach?

How are teachers reaching students with different abilities? What strategies are being practised and what are the motives guiding these practices?

What issues do teachers face in applying UDL in the classroom? Do they have the necessary support and resources for such implementation?

A review of the literature

The concept of inclusive education has brought with it the much-needed share of equality in approach for the education of the differently abled by giving them a levelled field to rightly exhibit their differential abilities, proving themselves capable enough to learn and perform together, at par with all their classmates (Ahmed, 2015, p. 62).

Throughout this section, the use of how the Universal Design for Learning framework helps teachers reach all students despite their abilities is explored. Moreover, it presents an in-depth explanation of the UDL, and how the curriculum can be accessible for all students through modifications, different forms of assessment and adequate support. The Maltese National Curriculum Framework (2012) encourages a studentcentred approach, primarily for all students to receive their educational entitlement. Thus, the way forward is that educators will support and promote learners so they are more involved in their learning (MEDE, 2019).

Inclusion and the Maltese situation

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It is significant that diversity should be effective in our school and used as a learning possibility to foster the inclusion of every individual (MEDE, 2019). Inclusion is a significant matter as it values the diversity of each student. When schools are inclusive, children have more occasions to acquire their personal strengths as teachers provide different strategies and activities to reach all the students. Specifically, inclusion is the procedure of decreasing barriers to inclusion and integration. Inclusive Education has broadened in meaning, no longer concerning the learner, but how constructed the system itself and what barriers could hinder the learner from accessing learning opportunities in the class (MEDE, 2019, p. 25).

The main objective of inclusive education is to guarantee that all learners,

including those with any challenge, have the same opportunities as all other children (Florian & Linklater, 2010). Inclusion in the school context can also be split into two types – academic inclusion and social inclusion. Academic inclusion is where all students have the right to fully participate in academic tasks and curriculum in an inclusive classroom (Katz, 2013). Social inclusion, on the other hand, describes the relationship and the communication with other peers. In the Salamanca Statement (1994), a framework for actions proposed that all children have the right to be included in mainstream schools despite their difficulties and challenges. Schools should accommodate students' requirements (Centre for Studies on Inclusive Education, 2021).

Lieberman (2017) argues that inclusion is when students are at school in a tangible way, where everyone has the right to be appreciated and respected. Although inclusion is vital and significant, some teachers may struggle to accept that all children have the right to education, especially if these have severe or profound challenges. Glazzard (2011) argues that if teachers have negative approaches towards inclusion, they might find it impossible to take responsibility for teaching each and every student. Moreover, the experience revealed important negative associations with ways of thinking and enthusiasm, indicating that when teachers spend a long time in the profession, their positive attitudes and willingness for inclusion decrease (Hind, Larking & Dunn, 2018).

The inclusive policy Route to Quality Inclusion (Ministry for Education and Employment, 2019) includes the main principles of inclusion, morals and ideas necessary to move towards positive learner diversity. It encourages schools towards an inclusive high-quality education for all learners. One of ten central topics of the policy is a whole school inclusive environment. The use of Universal Design for Learning will encourage a more learning-friendly setting and promote the elimination of curricular, social, and physical obstacles concerning inclusion (Ministry for Education and Employment, 2019).

This research is about using UDL in an inclusive classroom rooted in the theories of Vygotsky (2011), Gardner (2000) and Piaget (2010), since the notion of UDL is grounded neuroscience study and cognitive evolution. Ellen McGuire-Schwartz and Arndt (2007) observe that Gardner's Multiple Intelligence Theory is an alternative method to comprehend student learning styles and adapt to students' needs. The present study is based on constructivism and examines the use of inclusive teaching in primary schools specifically relevant to UDL. The study is tackling directly the perceptions and experiences of teachers using UDL within inclusive

primary schools. Rao et al. (2014) point out that the implementation of UDL is already enthusiastically applied by a few countries.

Malta has been endeavouring to promote inclusion for a long time. It was Id-Dar tal-Providenza (transl. the House of Providence) that first took action in Malta to help people with particular disabilities. This institution strives to offer individualised residential amenities to such persons in a family-like environment that enhances and maximises their capabilities, thus ensuring their involvement in society. It also supports the families of persons with disabilities. The mission of Id-Dar tal-Providenza is to foster service users' holistic personal growth and social inclusion, comprising self-sufficiency and self-determination. The Warnock Report (1978) encouraged the inclusion of students with disability in mainstream schools. It was believed that if children with diverse abilities were included in mainstream schools, they would settle in with less difficulty. Barnes (2000) recognises that the Warnock Report has had a massive influence on integrating individuals with different abilities.

Sadly, in Malta streaming was dominant at the time. In fact, mainstream schools were only reaching those students who followed the standard curriculum. Parents whose children had a disability needed to stand up for their children's right to attend mainstream schools given that these were not accessible to persons with physical disability. As Bartolo (2001) has pointed out, it was in 1960 that parents whose children had physical disabilities (but not intellectual disabilities) began fighting to place their children in mainstream schools. In Malta, as asserted by Tanti Burlò (2010), the first efforts towards inclusion were shown during the 1980s. Eventually, the Eden Foundation and the Kummissjoni Nazzjonali Persuni b'Diżabilità (KNPD; National Commission for Persons with Disabilities) came into being.

The KNPD is committed to making Malta's community inclusive, so that individuals with disabilities can achieve their full potential and experience a high quality of life through equity opportunities. This Commission aims to eradicate any sort of overt or indirect social discrimination against people with disabilities and their families, while providing them with the necessary assistance and support.

The Eden Foundation (later merging with Razzett tal-Ħbiberija to become INSPIRE) offered early intervention, support for the families and advice how to help their children's learning and progress. KNPD and Eden helped children with special needs to attend mainstream schools, and in 1989 facilitators were employed to support students on a one-to-one basis in mainstream schools. The term 'facilitators' was then changed to Learning Support Educators (LSE), whose primary role remained the same: that of

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helping individuals with diverse needs in mainstream schools and learning centres. Students who benefit from the support of an LSE first need a statement report from the Statementing Moderating Panel founded in 1998. The Child Development Assessment Unit (CDAU) decides if the student should benefit from the support of an LSE and even determines what type of support is to be provided.

In 1999 the National Minimum Curriculum (NMC) was published. It presents a complete document that includes the diverse phases of human progress, although it also considers the various learning capabilities, learning methods and ethnicity that all individuals possess. This document also gives the meaning of diversity and how this can be developed within the educational environment. Simultaneously, it comprises different learning strategies to make the learning process easier using diverse methodologies and learning types, simplifying learning by altering and modifying different learning styles (Ministry of Education, 1999).

Quality Education for All is the first principle of this document. It focuses on the importance of every student being given the same chance as other students regardless of their abilities. This in turn confirms the significance of student integration and diversity: every individual can feel assured, secure and comfortable in the learning environment.

Moreover, the eighth principle, *An Inclusive Education*, is directed at how methods and techniques for learning are unique for every individual. It also stresses the responsibility to assist diversity in society. Individuals with diverse needs must be included in our community, hence society must commit to putting diversity into practice.

In 2012 a document which focuses on the concept of a holistic lifelong learning approach was presented. The National Curriculum Framework (NCF) stresses the significance of diversity and the importance of every individual's particular needs and capabilities in their learning development. It encourages modified and diverse programmes for children with different needs according to their abilities and skills. The first two principles of this document endorse inclusion in the schools, while principle two also emphasises the importance of catering for the various aspects of diversity by applying different approaches and methods in an inclusive setting.

Malta's inclusive education policies evolved progressively and in 2019 the Inclusive Education: Route to Quality Inclusion policy was issued (Ministry for Education and Employment, 2019). Although the Maltese education system tries to include and reach every student, it often ends up being presented as a one-size-fits-all approach. Education is not stagnant. It is always changing in the attempt to become better for all involved. It is now moving to a system that reaches all students while ensuring

the entitlement of all by taking a more student-centred approach. Thus, the way forward is that educators attend to the learners and encourage them to be more involved in their learning (Ministry for Education and Employment, 2019). The document's policy goals make sure that every student has the right to "quality instruction, intervention and support to experience success in learning within a high-quality Inclusive Education system" (Ministry for Education and Employment, 2019, p. 13).

The sixth principle of the policy gives prominence to the significance of the educational system according to student necessity. Hence, a learner-centred approach generally includes different teaching methodologies that emphasise the student skills and capabilities allowing lifelong learning and more independence to problem-solving.

The seventh principle emphasises how educators need to use different methods and techniques to reach every student. Hence, it improves learning by "providing multiple means of engagement, representation of content, action and expression" (Ministry for Education and Employment, 2019, p. 15).

Although the three policies discussed have similar principles, when compared, some differences are apparent. Whereas the NCF focuses on diversity as a way to support education for everyone, the National Minimum Curriculum (1999) brings out the idea of inclusion and how inclusion is vital in the education system. On the other hand, the Route to Inclusion policy offers a more comprehensive and holistic meaning of inclusive education.

The Universal Design for Learning and the curriculum

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The UDL cannot be effective if inclusion does not exist. Inclusion is an essential issue, as it values the diversity of every individual. When inclusion is present, and UDL is applied, students are given opportunities to develop their potential and integrate well in the environment.

If we look at the meaning of UDL more closely, the word *universal* explains that the framework is to be used and comprehended by everybody. On the other hand, the term *design* describes the formation of a strategy. The UDL is a framework that concentrates on identifying individuals' learning requirements, various methodologies in the classrooms, various strategies and supporting learners in tackling the curriculum. Moreover, the UDL identifies that there is flexibility in acquiring learning. Smith (2012) states that although the utilisation of UDL is sometimes limited, it is continuously increasing.

Martin (2016) affirms that universal design composes an accessible and reachable learning setting for all students. To the contrary, a study in Canada states that although UDL is implemented, some schools in Canada

still opt for 'pull-out' sessions (Sokal & Katz, 2015). UDL emphasises and encourages inclusive methods and techniques that can be implemented at school, so that all children are included and no one is segregated.

The three main principles of UDL focus on how educators can satisfy the diverse needs of students to reach their aims. To back up the perception and benefits of the UDL, a visual representation of the three primary principles of it is shown in Fig. 1.

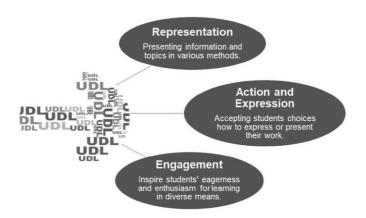


Fig. 1: The three principles of UDL (adapted from *Universal Design for Learning Guidelines*, Center for Applied Special Technology, 2014)

While these changes are important to ensure that every student benefits from an adequate methodology to learn, it also means that educators need to change how they plan, prepare and deliver different lessons. A qualitative study conducted by Scott (2018) shows that eight out of nine teachers believe that the UDL framework allows students to access the curriculum. Most of the teachers accept that UDL offers "equal access to the curriculum" (Scott, 2018, p. 279) and is important to ensure inclusion. Through UDL the curriculum can be accessible for all the students with modifications, access, assessment and support. Since the education system model has changed to include every student, the curriculum needs to be altered to allow every student to be included in the mainstream classroom (Courey et al., 2012). Sometimes, even though children are in an inclusive setting, they are still not fully supported; furthermore, Sokal and Katz (2015) reveal that in Canada some children are physically in an inclusive school, but they are not receiving the required adequate academic support.

Bronwell et al. (2010) hold that collaborative practices need to be more present while emphasising differentiated teaching in a less restrictive environment. Moreover, educators need to follow up on the students to monitor their progress. Hence, assessment throughout the year is crucial when implementing UDL. One of the main principles to make UDL more effective is by observing the progress of the students (Basham & Marino, 2013). Turnbull et al. (2013) add that assessment is the core of UDL since it considers the learners' learning ability. The NCF (Ministry for Education and Employment, 2012) agrees on the significance of assessment since this contributes considerably to learning and development at every level. Moreover, it is an essential part of the process of learning and teaching.

The concept of UDL is intended to primarily address the inflexible curricula that impact negatively struggling students (CAST, 2014). The UDL framework supports every student since it gives each more access and positive impact on learning.

Unfortunately, however, some educators may find differentiated teaching too demanding as they need to prepare many more resources, since no particular method meets the needs of *every* student. In this regard teachers may more readily accept the implementation of UDL because they can re-design existing lessons rather than spend time creating new ones (Katzel & Richards, 2013).

On the positive side, the Universal Design is an educational framework which fits in perfectly with inclusive education. It is a method that addresses all students' learning needs irrespective of their race, socioeconomic background, ethnicity and learning methods (Tanti Burlò, 2010). The UDL allows every student the opportunity to be treated fairly and equally within the education system. Martin (2016) affirms that learning variability is turning out to be our new class model, as we are now more aware that students have their own learning preference, capability, cultures and involvement, all of which influence how they learn. Through UDL, the curriculum can be made accessible for all students through assessment, modifications, support and access. According to Hall et al. (2012), UDL is one of the frameworks that is efficient and comprehensive for all students.

There are, however, a number of limitations and challenges that need to be pointed out. Educators may find different obstacles such as money, or insufficient engagement, training and time. A study done by Scott (2018) discovered that even though educators believe in the UDL framework, they meet difficulties while applying it in an inclusive setting.

One of the barriers to applying the *Means of Engagement* principle is that of keeping students involved, motivated and interested. Educators have to deal with the fact that students need to be kept motivated and enthused.

Therefore, the curriculum should be accessible and interesting to all students. Martin (2016) argues that to keep students involved, educators need to give them the chance to choose their best learning style.

A barrier to the principle Multiple Means of Representation is lack of training. Some educators may find it challenging to change their teaching methods to new ones, especially if they do not receive enough training, particularly with technology. Nowadays, assistive technology and other tools are all significant for differentiating teaching and these are useful and vital in the use of the UDL. For this reason, educators need to be familiar with the various new tools to accommodate more students with diverse needs (Martin, 2016). A study conducted by Scott (2018) also concluded that some teachers did not encourage inclusion and the use of the UDL in their classrooms due to lack of training. They find it challenging to support students with diverse abilities. Financial difficulties can also be seen as a barrier. Martin (2016) points out that teachers may feel that they cannot apply the UDL due to financial hindrances. While applying this design in practice resources is essential, and although some resources are free of charge, other supplies need to be purchased. Some educators may not feel comfortable purchasing supplies and resources from their own income, especially when considering the variety of student needs.

The role of technology

The role of technology is fundamental to the implementation of the UDL because it increases the simplicity of adaptations and promotes better accessible routes for the diverse learner. (Meyer et al., 2014). Moreover, Edyburn explains the importance of assistive technology and its role in the practice of the UDL principles to help individuals while also highlighting the fact that "UDL is not only assistive technology" (2010, p. 38). He adds that, while assistive technology is proposed to individuals who require particular assistance, UDL focuses on each student and the use of different methodology to reach every individual.

Technology can support various students with diverse needs and assist the students in accessing the curriculum in various ways such as organisation, reading, communication and much more. Ahmed (2015) observes that students may have several means to complete their work through the successful integration of assistive technology into the inclusive classes, with greater flexibility in the execution of previously impossible activities. Edyburn (2010) further emphasizes this matter since he describes technology as "essential" due to its flexibility (p. 38). In an inclusive classroom it is significant that students become more autonomous and independent. Consequently Cavanagh (2014) underlines the importance of education addressing all the students' intellectual and linguistic

requirements. As a result he explains that using technology, which he describes as a powerful tool, can support and assist students to achieve their objectives. Moreover, Cervenanská (2013) stresses the meaning of incorporating technology in the process of teaching and learning and identifies it as a crucial matter and a successful progression. Assistive technology is used to conquer barriers while learning, hence it is essential that assistive technology is incorporated right from the beginning into the mainstream curriculum.

Collaboration for effectiveness

While working with the UDL, where all students can be reached, the class team, comprising teacher and LSE, must work cooperatively since the design cannot be achieved without collaboration. Two essential characteristics of a positive collaboration are a positive mood and communication. Communication is vital while working in a team as it is significant to success. As soon as a team has effective communication, their level of success and efficiency grows. When team members accentuate the importance of communication and collaboration, it helps to raise their achievement level (Assbeihat, 2016).

A collaborative atmosphere is when positivity exists, while motivation and eagerness for work increase. Mitchell and Boyle (2019) hold that a positive environment is favourable to collaboration as members are more strongly disposed to obtaining new concepts.

Scott's (2018) study regarding barriers for UDL pointed out that special education teachers complained that some co-teachers did not accept inclusion, and this resulted in lack of cooperation. Since they did not work together as a team there was no effective or constructive communication between them. Additionally, Assbeihat (2016) argues that if communication breaks down, a decrease in performance is to be expected, and this in turn will lead to a lack of success and achievements.

To conclude, Basham and Marino (2013) explain that two essential tools while applying the UDL are pedagogy and learning resources. Furthermore, Izzo and Bauer (2015) stress that educators should always believe in, and have high expectations for, every student despite their needs. When students feel that they are in an environment where they are accepted and can learn, success will be accomplished.

The research: data presentation, analysis and discussion

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This section focuses on the findings derived from interviews conducted with four teachers in different schools. One intent of this exercise was to investigate teachers' perceptions of the use of the UDL in an inclusive classroom. Another aim was to see how teachers could apply the UDL in

their teaching. The interviews were done with teachers teaching early and primary years.

The researcher is aware that if someone else reads the data attained, they may interpret it differently according to their own past experience and knowledge. Nevertheless, the researcher was conscious of this during the process of analysis and therefore tried to reduce personal interpretation and bias by taking a number of precautions, such as analysing the data immediately after collection to promote loyalty to the participants' information as much as possible.

The data from the interviews were individually analysed using thematic analysis for emerging themes. The researcher reviewed the themes to ensure that they offered a practical and precise explanation of the data collected. Four clear themes were identified from the interviewees' answers, these being:

- 1. inclusive setting
- 2. teaching strategies and methodologies when using the UDL
- 3. collaboration
- barriers to the UDL

It can be shown that these themes are interrelated as they share similarities in terms of fundamental problems. The themes are individually discussed in detail in the following sub-sections.

Theme 1: Inclusive setting

When the researcher asked about the teachers' perceptions regarding the inclusive classroom, all four teachers fully agreed that inclusive setting is crucial for all children to learn together whatever their abilities. Teacher 1 stated that "in inclusive classrooms the teacher embraces student diversity and sees each child as an individual and caters to all the students". The policy Route for Inclusion (Ministry for Education and Employment, 2019) stresses that our schools' diversity must be successful and used as a learning opportunity to encourage and inspire inclusion. Teacher 1 described an inclusive classroom as one "where every child feels safe and has a sense of belonging". This concurs with the responses of the other teachers interviewed who also described an inclusive classroom as an environment that gives all the students opportunities to interact, work, and learn.

When the researcher asked whether students were integrated well in an inclusive classroom, the four teachers stated that they felt that students' differences were accepted, and they had a right to the same opportunities as other learners. Additionally, they all mentioned that this was due to good planning and collaboration. This finding concurs with a preceding

study, showing that the key to inclusion is for every student to have the same and equal opportunities as the others (Florian & Linklater, 2010).

Teacher 3, who teaches in the early years, stated that since young children are nowadays in constant contact with others who have diverse needs, they are more accepting of diversity than when she was a child. This teacher further explained that she likes to do social stories about diversity in the first few days of school and explain to the students that we are all different and unique. She stated that, in her opinion, this helps children better understand others' needs and accept them for who they are. She also said that "seeing me as a teacher integrating the child shows them that he/she is part of the class as well" (Teacher 3).

The importance of identifying the child's strengths and needs was one of the points that all four participants mentioned. The teachers had different points of view when asked whether educators are prepared for inclusive education and what stressed them out. Although they feel prepared, they understand that it is not an easy job. Teacher 4, who teaches in the primary years, particularly underlined her feeling of stress. She stated that she and her colleagues feel stressed that they need to cover all the vast syllabus while they also need to prepare differentiated work for the students' needs. She said that experience helped her build a successful inclusive classroom for all students, even with severe disabilities or challenging behaviour. This contrasts with previous research, which points out that the longer a teacher has spent in the profession, the more the perspectives towards inclusion and enthusiasm to work mostly with children with behavioural challenges lessen (Hind, Larking & Dunn, 2018).

Teacher 2 added that some teachers are not ready since they do not want to prepare different techniques for children with different abilities, or they have negative opinions regarding inclusive environments. In addition to this statement, previous research shows that, unfortunately, when teachers do not have a positive approach towards inclusion, they find it arduous to create an inclusive setting for every student despite their abilities (Glazzard, 2011). Moreover, Teacher 2 felt that in her opinion younger teachers are more open-minded towards inclusion when compared to former teachers who were not used to teaching in an inclusive setting. Teacher 3 argued that "adapting to every child's needs is challenging", but she also stressed the importance of collaboration, continuing that "together with LSEs it will be easier to cater for the child's needs". Both teachers who teach at primary level emphasised that what stresses them out most is not the preparation but the fact that the syllabus is too extensive to teach in the available time. Therefore, they both agreed that preparation and resources are crucial to cater for the diverse needs and learning styles. A study by Jordan Anstead (2016) affirmed that participants suggested that they

would like to incorporate UDL to address students' needs with diverse abilities; however, most of the participants had negative reactions about the amount of time required for preparation, planning and collaboration.

Theme 2: Teaching strategies and methodologies for using the UDL

The implementation of the UDL has to be continuous, fostering and building an inclusive atmosphere that addresses all the needs and diversity of the students. During the interview Teacher 4 admitted that she was not familiar with this approach but she showed interest to learn more about it. However, when asked whether she includes differentiated teaching and uses diverse methodologies and strategies, the teacher emphasized the importance of children having the chance to choose the method which makes them feel more comfortable. The rest of the teachers confirmed that they knew about the main purpose of the UDL from courses they had attended and agreed on the importance of the implementation of this approach.

The teachers expressed their perceptions regarding the use of the UDL in classrooms, and they all agreed that through the use of this method students are given a chance to have an active role in the learning, to attain abilities and skills, and thus to improve their academic achievements. Furthermore, this coincides with Martin's (2016) findings that the UDL creates a setting which is more accessible. The methods utilised by teachers while using the UDL observe all students' individual strengths and weaknesses and it is crucial that the setting, strategies and methodologies are adapted according to their needs. The researcher noted no particular disparity between the early years' teachers and the primary years' teachers. Planning was the main detail that all teachers mentioned. Teacher 1 stated that "in order to meet the diverse needs of my students, I adjust the content, the knowledge and skills that students need to master". She added that a strategy that she found beneficial was that children of mixed abilities worked together to enhance their collaborative and communication skills. Teacher 1 continued that the use of different approaches and methodologies helped and encouraged the students to learn. Significantly, the teacher's role is to encourage the students and offer different ways to learn and to feel included. The Ministry for Education and Employment (2019) also highlighted the significance of educators who encourage the learners, thus offering them the opportunity to be more involved in their learning development.

Regarding teaching strategies, the four teachers mentioned different approaches. At this point the researcher could notice that whereas in early years visuals and hands-on activities are used more, in the primary years digital technology resources were more present. Technology is one of the

most powerful tools in today's society, and it has become an essential need in daily life. Both primary teachers agreed that the use of technology and the fact that every student has a tablet enhanced every child's reach. This confirmed a previous study which emphasised that technology is a powerful tool since it can help students attain their aim (Cavanagh, 2014). Moreover, since children in the primary years have a tablet, this increases their access and opportunities to reap the advantages of technology. This finding corresponded with the prior result where technology was described as essential due to its flexibility (Edyburn, 2010). When asked if using different strategies and methods students are reaching their potential better and feeling successful in their learning, the four teachers expressed fully positive responses. Furthermore, Teacher 4 added that "differential contact process, products or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction".

Theme 3: Collaboration

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Collaboration is fundamental when working in an inclusive classroom since it is believed to improve and enrich teaching. During the interviews the teachers were asked whether they considered it important to have an LSE to aid inclusion in classrooms. The answers were all exceptionally positive; they responded that an LSE must be in class to support and assist the children. Teacher 4 stated that from her experience she found that the LSE helps children with difficulties, as well as high achievers when they feel frustrated and bored.

Teacher 1, who teaches in a primary school, declared that she usually has two LSEs, which she still found an immense asset, adding: "I can't imagine myself on my own explaining three and sometimes even four different adaptations, and preparing diverse resources to reach every student". Collaboration, sharing of ideas and teamwork are essential to success. This was also mentioned by Teacher 3, who stressed the importance of a good relationship between the teacher and the LSE. Thus, without interaction and collaboration, success cannot exist. Preparing and planning for all children requires good communication. When team members highlight the meaning of communication and collaboration, it facilitates an increase in the level of success (Assbeihat, 2016).

Furthermore, when asked if they have enough support from the school management, they all felt supported even though they admitted that they were conscious of the school constraints. Teacher 2 emphasised the significance of good collaboration with school management as she believes that teachers need continuous assistance and backing. One of

the teachers specified that although they promote differentiated teaching and the use of the UDL approach, schools are not always prepared or designed to provide resources akin to the student's needs. This will be discussed in more detail in the next section.

Theme 4: Barriers to the UDL

When asked about the barriers encountered while implementing the UDL, the four interviewees mentioned similar difficulties. They stated that while they do their utmost to implement the UDL using different strategies and methodologies, they still find barriers, particularly lack of training, lack of engagement, financial problems and time.

Time was viewed as a powerful inhibitor for participants to introduce the UDL in the classroom. The teachers who teach in the primary level expressed their frustration and felt overwhelmed due to the lack of time brought about by the vast syllabus. Teachers 3 and 4, who teach in the primary years, admitted that they do not have enough time to implement the UDL using the right methods as the syllabus is so extensive. Needing to cover it all due to exams, they sometimes find themselves constrained to introduce new concepts one right after another. Teacher 1 added that some children need time to comprehend new concepts, but unfortunately teachers need to carry on with covering the syllabus, which precludes them from allowing children to choose their preferred methods even if some of them fall behind. Previous research has shown that students need to be engaged; thus, teachers have to give them the opportunity to choose the learning styles they feel comfortable working with (Martin, 2016). Nevertheless, from the data gathered here, it is clear that this is not the reality of the teachers involved in this study and of their students.

Another barrier mentioned was the lack of engagement of some students. As Teacher 4 pointed out, the vast syllabus at primary level is reducing the students' motivation and enthusiasm. Matteson et al. (2011) state that educators have always been concerned about keeping students engaged and motivated. It is challenging for the teacher to keep the students attentive and interested whilst keeping up with time constraints and making sure to cover the entire syllabus required.

Conversely, early years teachers did not emphasise the syllabus as their major barrier, but they argued that planning various strategies and activities takes time. Young children need more hands-on activities to understand certain concepts, visuals and interactive games. Finding the right activity or preparing various resources for the students' needs is time consuming. Besides, there are financial difficulties as schools have limited budgets, which results in burdening the teachers with personally pooling money for the resources needed.

Most of the teachers interviewed mentioned lack of training as another barrier for the implementation of the UDL. Although they are all qualified and experienced, Teacher 3 specified that it is essential that training is given during the scholastic year. Teachers believe that continuous training helps them improve UDL practices, especially because technology is always evolving, so they need to keep updated. A UDL-based training programme has been shown to increase the awareness of teachers in acquiring innovative teaching methods in terms of demonstrating the learning material, student involvement and evaluating their understanding (Courey et al., 2012).

Discussion

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The participants' perceptions show that they all positively believe in the significance of the UDL in classrooms. The four teachers showed interest and enthusiasm, and they made it clear that while they are trying their utmost for the best of the students, they are keen to learn more.

Teachers 1 and 2 revealed that they had never had any UDL-related courses and lesson modelling. Moreover, they wished to have a demo of what a UDL lesson looks like or maybe a guide to refer to.

The participating teachers were aware that the implementing of the UDL created more work and stress, especially when planning. They all mentioned that planning is vital since teachers need to meet the diverse requirements of the students in order for these to master the content. Moreover, teachers are using more student-centred approaches and even the methods to teach a concept need to be according to the students' learning styles so that pupils have an active role in their learning. The basis for the implementation and application of the UDL has been provided by constructivist theories, such as those by Piaget (1997) and Vygotsky (2011). Teachers, according to Katzel and Richards (2013), should be able to readily modify current lessons to incorporate elements of the UDL. The researcher noticed that the primary teachers were more concerned about the vast syllabus, especially since they need to prepare the children for exams; a higher level of anxiety was thus perceived. All the participants want more time allocated to plan according to the UDL. The researcher noticed that although all the four teachers mentioned planning and its importance, they did not specify what type of strategies and methodology they apply, apart from the use of technology and visuals.

Teachers were all in favour of using technology, especially the primary teachers, since every student has his own tablet. However, while the teachers interviewed in this study were in favour of using technology, they did not mention any supplementary equipment or material needed

for the accomplishment of the UDL. Martin (2016) argued that educators need to keep up to date with new equipment so that they are able to assist all students.

During the research it was clear that the four teachers were in favour of the UDL and they believe that when using it students are more successful since they feel more motivated. As learning is tailored to meet individual needs, it boosts the students' confidence. Nonetheless, one teacher added that sometimes, even when trying her best to implement the UDL approach, some students still struggle to achieve their goal. According to the Route to Quality Inclusion policy (Ministry for Education and Employment, 2019), Maltese education has moved to ensuring students' educational entitlement. The sixth principle of this policy focuses on the importance of a learner-centred approach where the students are more involved, and of a differentiated curriculum with the UDL principles. The policy also focuses on the UDL as it seeks to build a versatile curriculum in which every learner can be accommodated within an inclusive learningfriendly environment. This coincides with the interview results since teachers mentioned the importance of the student-centred approach while using the UDL.

Although the researcher had positive responses, the fact that primary teachers were stressed due to the extensive curriculum is a concern. One of the main suggestions is that the curriculum should be revised. Even in the policy Route to Quality Inclusion (Ministry for Education and Employment, 2019) a student-centred approach is emphasised, but the teachers are finding this difficult due to the extensive curriculum. Moreover, teachers need to have more time to collaborate with team members, as the teachers' replies show that collaboration is crucial. Unfortunately, teachers have no time to meet with other primary school colleagues to share their experiences and talk with their LSEs. It is a pity that there is a lack of sharing of ideas and experiences.

Various limitations to this study need to be acknowledged. The sample size was small, with the interviews being with four teachers. Besides, the teachers interviewed were all from State schools. Perhaps had teachers from Church or independent schools also been interviewed, the indications may have differed. Furthermore, the study could have explored the issue more deeply if class observations had been carried out, but this was not possible due to the COVID-19 pandemic situation requiring particular precautionary measures.

Conclusions, suggestions and recommendations

This article emphasises the significance of accepting and including everyone despite differing abilities, and of the methods and strategies

used by educators to assist children in Maltese State primary schools. This is crucial because the UDL framework helps to eliminate or reduce barriers by considering all students' needs from the beginning (Edyburn, 2010). Research was carried out to determine the teachers' perception of the UDL and how this can be applied. This was done with the cooperation of two early years' teachers and two primary teachers. The interviews revealed that on the whole the participants were already aware that the Universal Design for Learning is essential, especially in an inclusive setting. All the four teachers interviewed mentioned the significance of differential methodologies and strategies which they use in the classroom to reach everyone. This is very encouraging for the Maltese system as the UDL is vital for inclusion due to it offering a way for all children to learn in a welcoming atmosphere. "The UDL-minded educator views curriculum and classroom design and development through the lens of accessibility for all, regardless of whether that accessibility has been specifically requested or is required" (Kennette & Wilson, 2019, p. 1). Consequently, it is vital to encourage more awareness of the Universal Design's benefits for learning and the advantages of incorporating it within the classroom. The curriculum adapts to the learners and their needs in a universal designed curriculum (Firchow, 2016).

It transpires that more studies into teachers' perceptions of the UDL are needed to get a broader understanding of the views and ideas that are vital for providing equal opportunities to every student. Additional studies concerning the use of UDL in inclusive primary schools should also be carried out. A considerable number of teachers and maybe also students or LSEs, in both State and Church schools across Malta, should be interviewed. This will help towards acquiring a wide spectrum of opinions and perspectives. Furthermore, since all of the participants in the present study had more than five years of teaching experience, another study could also focus on newly graduated educators to explore their perception of the UDL, and look into their practices and challenges when implementing the UDL during their first years of teaching. A comparison can also be made with more mature teachers on the subject.

Apart from the newly graduated, the study could also investigate the mature teachers who started their career in a non-inclusive classroom and investigate their point of view regarding inclusive setting and the UDL. Such a study could focus more on the planning and preparation that teachers do to implement the UDL, in order to give a more comprehensive picture of teachers' perspectives and opinions. Also, this will help researchers in clarifying whether teachers concur with an inclusive classroom, and find out more about the various methodologies and strategies used in different schools. Furthermore, teaching strategies using both non-tech and high-

tech resources should also be offered to students so that these benefit from a learning process that ensures more equal teaching opportunities.

The present research indicates that while results seemed guite positive, teachers are still facing challenges, especially at the primary level. Various barriers were mentioned, but the researcher noticed that planning and time were the two biggest hindrances teachers pointed out to be facing. Moreover, the vast syllabus they need to cover prevents teachers from providing diverse methods to accommodate all the students. A recommendation, especially in the policy on *Inclusion Education in Schools* - Route to Quality Inclusion (Ministry for Education and Employment, 2019), is that the syllabus must be modified and tailored for an inclusive environment. Moreover, other improvements such as smaller class sizes, reduction in the non-core curriculum, more human resources, more funds to meet the needs for every student and physical space or rooms to accommodate specific lessons or certain equipment should be considered. Furthermore, teachers interviewed underlined the importance of the LSE in class. Further studies may show whether it is beneficial to have an LSE in every classroom, even if there are no statemented students.

Teachers should be encouraged to use the UDL to support all students by seeking seminars, educational fora, online or interactive media, sessions held at school and related books. To create and maintain their own individual professional development plan educators need to have an appropriate approach to evaluate data (Duffy & Scala, 2012). It is essential that school administrations support and work collaboratively with the teachers and understand whether UDL strategies are being implemented correctly. A recommendation for all teachers on how this can be done is by school-based training, such as being part of the School Development Plan. Teachers can be briefed about the advantages of UDL techniques during such training sessions and urged to incorporate them into their lessons.

Indeed, a true differentiated curriculum which also has UDL principles as its foundation seeks to create a flexible curriculum through which it is possible to accommodate every learner within an inclusive learning-friendly environment.

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A practical guide to conduct research in schools in Malta: Reflections, implications and suggestions

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Introduction

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The collection of data is all around us. Frequently we are asked to provide data based on things we do, things we like or things we avail ourselves from. The request for quantitative data (3-question mini-surveys), qualitative data (a few open-ended questions) or mixed-methods data (a Likert-scale rating and one or two open-ended questions) is constant.

A few examples derive from the first few hours of a travel journey. A taxi drives you to the airport, and seconds after the trip is completed, you are asked to rank aspects related to the ride. For instance, you may be asked questions about the driver's attitude, the cleanliness of the vehicle and the feelings of safety throughout the trip. Airports also have a number of ways of gathering data. Most of them tend to be related to customer satisfaction rates with the intention of collecting information for services to be improved.

Despite that the aforementioned seems to be an informal task for customers, the effort involved behind the scenes in terms of data collection is a rather extensive and challenging one. As will be discussed in the following sections, the research process involves several time-consuming steps in terms of reviewing literature, identifying the sample and considering ethical issues.

Aim, objectives and research question

Requests for data collection from us human beings happen all the time. Such demands for data also occur in schools and educational settings. Intrigued by this reality, our paper aims to serve as a practical guide to conduct research in schools and educational settings in the small island state of Malta, in light of Bronfenbrenner's (1979) ecological systems approach. This could possibly fill the existing gap in terms of having a set of guidelines of how researchers may approach school-based research in Malta

The objectives of this paper are four. Firstly, it attempts to provide reflections on the approach, design and implementation of educational research in schools and invites the researcher to adopt five characteristics: reflexivity, strategy, ethics, flexibility and generosity. Secondly, it sheds light on the different approaches to conducting educational research in various school settings in Malta, namely State (governmental) and non-State (Church and independent) primary and secondary schools. Thirdly, it provides several implications that researchers are invited to keep in mind and reflect upon before, during and after carrying out school-based research. Finally, the paper offers suggestions through a checklist, which can be used as a point of reference for future research. Such aim and

objectives point towards an attempt to answer the following research question: How should researchers approach school-based research in Malta?

Relevance of the study

The guide is relevant to three sets of stakeholders in educational practice: institutions, lecturers and novice researchers. Firstly, it is aimed at educational institutions that offer undergraduate or postgraduate courses and may require students to conduct research in schools as part of such courses. Secondly, it is aimed at academics who lecture about research methods or act as academic supervisors in such courses. And thirdly, it is aimed at novice researchers and students who are about to conduct school-based research in Malta.

The paper provides reflections, implications and suggestions emerging from three different data sets. Firstly an analysis of several studies conducted in schools in Malta during recent years. Secondly, our own experiences of conducting fieldwork in schools in Malta as part of our doctoral research and during other research projects. Thirdly, the reflections, implications and suggestions in this paper also emerge from research carried out by students whom we have supervised during dissertations and research projects. Our experiences have exposed us to the research process first hand, and thus reflecting and writing about such a process adds validity to this paper. An auto-ethnographical approach dominates this writing as it provides the opportunity to writers to be: "both the author and focus of the story, the one who tells and the one who experiences, the observer and the observed, the creator and the created" (Ellis, 2020, p. 3).

Through Bronfenbrenner's (1979) ecological systems approach as the theory underpinning our reflections as academics and researchers, this paper sheds light on why research in schools is carried out and how school-based research in Malta may be conducted efficiently. Exploring the aforementioned would potentially equip researchers with essential knowledge and tools before embarking upon school-based research in Malta.

Malta: a small (research-fatigued) island state

Malta is a small island state of 316 square kilometres, approximately half the size of Singapore and a third the size of Cuba, two other island states. It has been a republic since 1974 and a member state of the European Union since 2004. This small island state currently faces numerous (at times, excessive) requests for school-based research, resulting in a general feeling of research fatigue. This is happening primarily due to many licensed educational institutions that offer numerous courses that

require students to conduct school-based research for their dissertations or research projects. These educational institutions have been licensed by the National Commission for Further and Higher Education (NCFHE), now known as the Malta Further and Higher Education Authority (MFHEA). This continuous data collection from schools in Malta presents numerous implications as well as increased ethical considerations and limitations (Schembri & Sciberras, 2020) to the research process. The following section shall outline the different educational institutions and their requirements in terms of research to be conducted in schools in Malta.

Malta College of Arts, Sciences and Technology

The Malta College of Arts, Science and Technology (MCAST) was established in 2001. It is a leading further and higher education institution in Malta for the provision of vocational qualifications across 6 institutes. The institute which is directly related to school-based research is the Institute of Community Service (ICS). The ICS holds the Department of Early Years Education, the Department of Inclusive Education and the undergraduate and postgraduate courses related to vocational educational training (VET). Students following courses at this institute, including the Higher Diploma in Advanced Studies in the Early Years, the Bachelor of Arts in Inclusive Education, the Bachelor of Vocation Education Training (BVET) and the Master of Vocational Educational Applied Research (MVEAR), are expected to conduct educational research which often tends to be school-based. For example, students reading for the Higher Diploma in Advanced Studies in the Early Years must conduct a small-scale research project that often consists of students carrying out school-based research. Such a Higher Diploma attracts a high number of students with cohorts sometimes exceeding 70 students per year, each with their own individual research project.

Further to the latter, students following other courses such as the Bachelor of Arts in Inclusive Education (both made available as full-time and parttime programmes), BVET or MVEAR, are expected to conduct middlescale research in the form of a dissertation, which is often composed of school-based research. Other departments within the same institute also require students to conduct research projects or dissertations which focus on school-based research. For instance, students following a course within the Department of Health and Social Care within ICS may choose to research the effects of education on learners deriving from a low socioeconomic area. Apart from students carrying out school-based research, it is becoming popular for academics at MCAST to also conduct educational research in schools.

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University of Malta

The University of Malta (UM) is the oldest educational institution in Malta. It hosts the Faculty of Education, whereby such faculty is directly related to school-based research. A number of departments within this faculty offer courses that may require students to conduct school-based research. For example, students following a Master in Teaching and Learning at UM are requested to produce a research-based or project-based dissertation. Other departments within the Faculty provide various Master programmes (e.g. the Master in Educational Management and Leadership, the Master in Access to Education and the Master in Vocational Education and Training), which require students to conduct research as part of their dissertation. Similar to what transpires at MCAST, it is also worth noting that other faculties within the UM may also require students to conduct studies that may be school-based. For instance, students following a course within the Faculty of Social Wellbeing may be interested in conducting research related to education in Malta. Apart from students carrying out schoolbased research, numerous academics at UM also conduct educational research in schools in Malta.

Institute for Education

The Institute for Education (IfE) was established in 2015 to provide initial teacher training and professional development for educators in Malta. In light of the aforementioned, IfE offers a number of courses that also require students to conduct research. For example, students following a Master in Applied Educational Leadership, a Master of Education and a Bachelor of Education, conduct research involving schools and educators as research subjects. The majority of courses at IfE have a numerus clausus of 25 students. This tends to limit the annual number of research projects conducted by students reading for degree courses at IfE.

Private institutions & other researchers

Further to the above-mentioned institutions, other private institutions also offer undergraduate or postgraduate courses in education. Some of these institutions also expect students to conduct research as part of their coursework which is often conducted in schools.

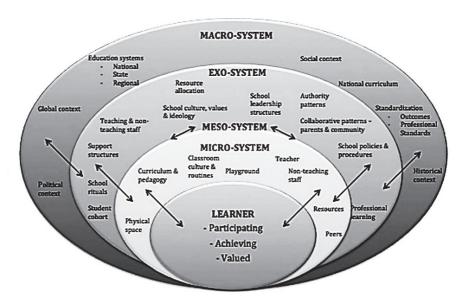
Moreover, numerous researchers are following postgraduate courses (e.g. doctoral studies) in foreign universities and collect data from schools or other educational settings in Malta. For example, as part of our doctoral studies in foreign institutions, we both collected data from schools and educators in Malta.

This paper will present a practical guide to approaching and conducting school-based research in such an overcrowded scenario with a significant

(again, at times excessive) amount of educational research being carried out, one academic year after the other. We believe that understanding this scenario is crucial as this may offer insight into how to: (i) approach and conduct school-based research in Malta, (ii) shape the research design accordingly for research to be conducted smoothly, and (iii) foresee, acknowledge and tackle potential limitations.

School-based research in light of Bronfenbrenner's Ecological Systems Model

Very often, when research in schools is carried out, the outcome of such studies impacts the learner. The learner in educational research should be observed through the layers of the environment in which they live and grow (Murphy, 2020). Bronfenbrenner's Ecological System Theory explains the several layers of ecological influences or systems which impact student development (Bronfenbrenner, 1979). Bronfenbrenner acknowledged two components that affect student learning: the first being the characteristics of the learner and the backgrounds in which they exist, and the second factor being the relationships and the interconnections between them (Anderson, Boyle & Deppeler, 2014). (Fig. 1)



CHRONO-SYSTEM: Time of primary and secondary schooling

Fig.1: The Ecology of Inclusive Education (Anderson, Boyle & Deppeler, 2014, p. 6).

When reviewing domains that influence specific areas of the educational system, this model serves as a means for understanding the relationships between singular, organisational, and communal dimensions, which impact an individual's development and experiences over a lifespan (Christensen, 2016). Bronfenbrenner's ecological systems model (1979) locates the learner at the core of five interconnected systems. According to the ecological system theory (Bronfenbrenner, 1979), these environmental structures are found in different multifaceted strata: microsystem, mesosystem, exosystem, macrosystem and chronosystem (Msangi, 2012). All the aforementioned layers exist from processes in the learner's life and include their family and school settings at an immediate and close impactful level to progressively more distant and abstract contextual forces, such as government policy and culture (Murphy, 2020). In light of this, evaluating the educational systems of learners is crucial as the direct environment surrounding the learner affects their development (Bronfenbrenner, 1979). Bronfenbrenner (1979) encouraged educationalists and psychologists to acknowledge the systems surrounding the learner as ones that constitute the learners' environment, and how these systems interact when they are attempting to understand the development of the learner and any challenges encountered (Quickfall, 2021).

Given that knowledge regarding human development and learning has expanded rapidly, the prospects to shape more compelling educational instruction has also increased (Darling-Hammond, 2020). Evaluation and amendments to develop and improve the schooling systems could be carried out by researching specific domains surrounding the learner, as outlined in Bronfenbrenner's ecological systems model (1979). Indeed, Govil (2013) argues that educational research has a purpose to fulfil, whether at a small or a large scale. Thus, whilst research studies serve to sustain and develop the local research capacity (Moosa, 2013), they should primarily be conducted to ensure that the learners' educational journey is enriched. Given that policy-developers, undergraduate and postgraduate students are the most involved cohorts in educational research, the nested systems in Bronfenbrenner's ecological systems theory (1979) would be possibly explored and evaluated with the intention that aspects within these strata are improved for the sake of providing the learner with a positive educational experience.

However, researching the specific areas within Bronfenbrenner's ecological systems level is not deemed sufficient. The nested layers within which the learner exists need to be further developed and improved for the learner to possibly benefit from such research. Whilst research is very often seen as an academic activity conducted by others (Karimi, 2021), it provides potential paradigm shifts to the practices in schools which

in turn will impact the nested structures affecting the quality of life of learners as outlined in the ecological systems theory (Bronfrenbrenner, 1979). However, it is believed that there is further need for research, results, and recommendations to be disseminated for potential change in practice. Research utilisation is characterised by a knowledge-driven or a problem-solving approach which assumes that if the information reaches the right person, it will be used (Amara, Quimet & Landry, 2004; Weiss, 1979). Thus, if in light of Bronfenbrenner's theory, research findings had to reach educational stakeholders such as policy-developers, educators, administrators, students and parents, change may be more likely to happen within the strata that impact the environment of the learner.

It seems that school-based research in Malta has considerably increased for a number of reasons. One primary motive has been for the sake of qualifications for educators to progress in terms of other roles, seniority ranks and salary progressions. Some examples of the latter derive from the fact that following the recent Sectoral Agreement (2018-2022) signed between the Malta Union of Teachers (MUT) and the Government of Malta (MEDE, 2017), Learning Support Educators (LSEs) may progress to the rank of LSE III when obtaining a Bachelor Degree in Inclusive Education. Furthermore, Assistant Heads of School, Heads of Department or School Counsellors who want to potentially seek opportunities to become Heads of School require a Masters Degree in Educational Leadership and Management. In both the examples provided, educators who are reading for these degrees need to carry out research studies as part of their dissertations.

Another reason underpinning the need for school-based research is the significant reforms that the Maltese educational system has undergone throughout the past few years. For instance, in the past few years, Malta has seen reform in the Secondary Educational Setting whereby My Journey: Achieving Through Different Paths has promoted a transformation of academic, vocational and applied learning programmes from a 'one size fits all' system to a more inclusive and fair learning system for all learners (MEDE, 2016). Following on this path, the Inclusive Education Policy and Framework (MEDE, 2019a; MEDE, 2019b) were developed to promote access to quality instruction, intervention and support to all learners irrespective of their cognitive, learning, multicultural, language, religious, spiritual, physical, psychological, socio-economic, gender and sexual diversities. Therefore, educators undergoing undergraduate and postgraduate courses are looking deeper into such areas as part of their dissertations. In most cases, those carrying out research studies in these areas often turn to listen to the voices from the grassroots. This, in turn, leads to a situation where students, their parents or legal guardians,

and their educators (teachers and leaders in schools) become the key participants throughout their research. Such a need to listen to the voices of these key persons as them being part of the micro-system as an ecological system closely nested to the learner (Bronfenbrenner, 1979) is critical, as it is through their participation that data which is relevant and valid may be gathered.

Methodology

Both the purpose and the research question which underpin this paper aimed to produce views on why research in schools in Malta is carried out and which suggestions and practices do researchers carrying out research in the Maltese educational context may follow for a smoother process. To develop such outlooks, an auto-ethnographic approach was the preferred method for the development of the current work. Autoethnography is an avant-garde method of qualitative inquiry that is being applied by an ever-increasing number of scholars from diverse disciplines, including the social sciences (Lapadat, 2017; Stahlke Wall, 2016). Futhermore, this type of methodology unfolded further to what research has termed as collaborative auto-ethnography – "a multifocal approach in which two or more researchers work together to share personal stories and interpret the pooled autoethnographic data" (Lapadat, 2017, p. 589). Indeed, given that as authors, we have several experiences in terms of collaboratively carrying out small scale research, supervising students in dissertations and also in publishing academic work, this method enabled us to pool in our experiences, reflect on it, provide insights to one another and finally to put it in writing within this publication. Throughout this process, we were able to support the idea of a shift from being individual towards becoming a collective agency hence "presenting a path towards personally engaging, non-exploitative and accessible research" (Lapadat, 2017, p. 589).

Through the application of a collaborative auto-ethnographic methodology, reflexivity enables us to share our academic experiences and develop a checklist of practical suggestions in terms of the several procedures required whilst carrying out school-based research in Malta. Literature describes reflexivity as the notion applied by researchers to interrelate and influence individuals and social procedures in the research site (Schwandt, 2015). In the case of the viewpoints within this paper, the research site and the social processes that we authors anticipate to affect, are researchers who intend or are in the process of researching schools in Malta. By revealing our background and personal viewpoints, theoretical positionality and style of interaction (Lapadat, 2017), we aim to facilitate the process for prospective researchers in the field of education in Malta.

In light of the aforementioned justifications, this paper intends to help:

- novice researchers to understand the context where they are going to conduct their research (including those following courses whereby a research component is required);
- academics and lecturers teaching on research methods modules or acting as academic supervisors, to use this paper as a guide or addon to their reading lists;
- students who are following research methods modules to learn more about the research process in the light of a Maltese context; and
- foreign researchers to understand the research fabric of schools in Malta.

Discussion

In this section, we follow the advice brought forward by Alibali and Nathan (2010) as we shape a model which may be used for school-based research. Moreover, we provide discussions based on this model which comprises five principles when conducting school-based research: reflexivity, strategy, ethics, flexibility and generosity (Fig. 2).

The way the principles will be outlined in this discussion may give the perception that these are linear, starting from 'reflexivity' and moving all the way around and ending with 'generosity'. This may not always be the case. We invite researchers to treat this model with a more circular approach rather than a linear one. This helps the researcher to assess and re-assess the school-based research by going back and forth along the model's proposed principles.

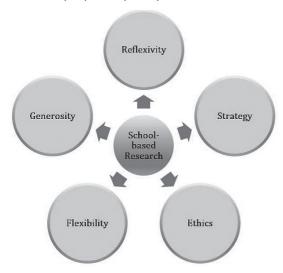


Fig. 2: Five principles when conducting school-based research (Schembri & Sciberras, 2021)

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It is recommended that researchers adhere to these five principles, before, during and after the data is collected from the school. This helps to provide a more robust and smooth research continuum.

On being reflexive - Set the scene

A researcher is being invited to be reflective while embarking on this research journey. In brief, a researcher should think before acting. It would be interesting for researchers to ask themselves:

- Why am I doing this?
- What does this research mean to me?
- What is this research giving me back?
- What is this research giving back to the school community?
- Am I generating findings for the school community to use?
- Or am I conducting this research for the general public?
- Has this research been conducted before?
 - If yes, why am I doing this once again?
 - If not, why has it not been conducted before?
- How is this research going to contribute to the field of study?
- How is this research going to be significant to practitioners in the field?
- And how is it going to be significant to those studying the field?
- Will it affect policymakers? If yes, in which way?

It is being suggested that a degree of innovation is imperative in school-based research. Although research carried out at an undergraduate level does not necessarily need to contribute to knowledge, it is recommended that innovation is key, and researchers are invited to explore the unexplored. As the saying goes, one can never visit the same place twice. Each time is a different story. This also applies to research in schools.

On being strategic - Choose wisely

A researcher is also invited to be strategic while embarking on school-based research. It is being recommended that the researcher chooses wisely. This applies to a number of choices.

Choose the research aim and objectives carefully

This will allow for a more solid and researchable research question. Then, if the research question requires school-based research to be conducted,

researchers are invited to ask themselves 'why'? Why does a researcher need to conduct this research in a school setting? Can this research question be answered without the need for school-based research? If possible, a researcher is invited to explore other possibilities and see if these are viable. If it is not possible, then a researcher needs to make sure that they are strategic in conducting school-based research.

Choose the school setting, target population and sample carefully

A number of schools are declining research requests, especially if schools are research-fatigued due to their very particular characteristics. For example, some schools are more popular amongst potential researchers than others due to a phenomenon that would be happening in that specific school setting. For example, particular schools may have a higherthan-usual rate of learners from a migrant background, or they may host students with specific impairments, needs or characteristics. Other schools would be more attractive as they would have participated in projects (e.g. EkoSkola, Dinja Waħda), specific competitions (e.g. tikka Matematika, Brillantini tal-Qari) or used as sites for pilot projects (e.g. GLOBE, GENE). It is recommended that if researchers do not work in schools or they have not worked in schools for a long period of time, it would be useful to read dissertations or journal articles and give particular attention to the methodological sections related to data collection and limitations. This would help the researchers be more aware of contemporary scenarios in school-based research. A researcher is also invited to reflect on what type of sampling strategy is the researcher proposing (e.g. purposive, random, snowball etc.). This reflection is important as it may completely shift the findings of the study.

Know the requirements for data collection

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Knowing the requirements for school-based data of different settings helps a researcher to be more strategic. The following section outlines the different procedural requirements related to State (government) and Non-State (Church and independent) schools. It is strongly suggested that researchers discuss these with their academic supervisors and check with the respective bodies about these procedures as requirements may change and be updated over time.

If a researcher is conducting research within or on behalf of an educational institution, firstly, the researcher needs to propose the research and submit it to the respective ethics committee of the institution. Once the proposed study has been granted ethics permission, the researcher may proceed to obtain ethics permission from the respective setting.

State schools (Government schools)

The researcher needs to obtain approval to conduct research in state schools or educational settings which fall under the remit of the Ministry for Education (MFED). This authorisation must be obtained from the MFED Research Ethics Committee (MREC), within the Directorate for Research, Lifelong Learning and Employability, and presented to the Head of School/Institute/Organisation where the researcher intends to carry out the research. When requesting authorisation, a researcher needs to provide the following:

- the approval letter from the education institution's ethics board clearly showing that the proposed research has been granted ethical permission,
- information letter and request for permission to carry out the school-based research and which needs to be addressed to the Head of School,
- a consent form (in English) for research to be given to adult participants (if they are educators),
- a consent form (in English and Maltese) for research to be given to adult participants (if they are parents),
- an assent form for research to be given to minors (and in this case, the researcher also needs to obtain consent from the minor's parent or legal guardian),
- a self-assessment form,
- a copy of the research tool (the interview guide or the questionnaire or the observation sheet etc.),
- a copy of the license of any software which is foreseen to be used by the researcher.

Non-State schools (Church schools)

A researcher needs to obtain approval to conduct research in Church schools or educational settings that fall under the Secretariat for Catholic Education (SfCE). This authorisation must be obtained from the SfCE and presented to the Head of School where the researcher intends to conduct the research. When requesting authorisation, a researcher needs to provide the following:

- the method of research that the researcher would like to use,
- a copy of the consent and/or assent forms,
- a copy of the research tool (the interview guide, the questionnaire or the observation sheet etc.),
- specifications about the participants' sample (some information about the sample, e.g. if the intended sample requires the participation of teachers, LSEs, parents, students, etc.),
- the name of the school/s where the researcher would like to carry out the research

The SfCE also recommends that a researcher who intends to conduct research in Church schools should first contact the Head of School, explaining to them that they are currently in the process of obtaining their approval from the SfCE and that they are enquiring whether the school would be interested in participating in the research or otherwise. Once the researcher has the verbal or written approval of the school, the researcher is to advise SfCE accordingly in order to issue the approval addressed to the Head of School concerned. The SfCE also requests that the researcher provides them with a copy of the research once this is concluded. Further information about this will be provided in the 'generosity' section.

Non-State schools (Independent schools)

A researcher needs to obtain approval to conduct research in independent schools or educational settings. However, there is no official central body from where to obtain such authorisation. A researcher needs to contact the Head of School of that respective setting, who will guide the researcher accordingly. It is common practice for the Head of School of a particular setting to grant permission for school-based research.

On being ethical - Know what is expected

A researcher is also invited to be ethical while embarking on school-based research. Felzmann (2009) explains that school-based research is subject to ethical challenges and limitations of substantial complexity. Below is an outline of ethical considerations that may need to be considered when conducting educational research. It is strongly suggested that the researcher checks their institution's specific ethical considerations and requests. It is also suggested that the researcher discusses these (and other) ethical considerations with their academic supervisor.

Voluntary participation

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A researcher needs to understand that they cannot coerce a potential participant into participating in the study. Within a small island state

like Malta, this could be both problematic and tempting (Schembri & Sciberras, 2020). As a matter of fact, a researcher may know practitioners who work in a particular school or they themselves, as insider researchers, may be working within this same setting. When tempted to do so, researchers need to remember that this would jeopardise the whole research process and they need to ask themselves if they are looking for real and accurate data and findings, or else just make-shift ones only to pursue and complete a degree. When discussing voluntary participation, it would be ideal to keep in mind the sample that needs to be recruited. Is the researcher only recruiting people they know, or is the researcher recruiting individuals they have never spoken with?

Informed consent

A researcher needs to understand if and how they will be obtaining consent from the participants. Presuming a researcher is expected to obtain consent (most of the time, this is compulsory). In that case, the researcher needs to provide the participants with a participant information letter (sometimes called a recruitment or information sheet) and a consent form which the participants need to sign as a way to show that they have been informed about the research aims, objectives and risks and that they give their consent. No research can be carried out before the participants have given their informed consent. In the participant information letter, it is suggested that a researcher includes:

- who they are
- why are they conducting this research
- the title of the research
- the aim and objectives of the research
- the reason why a participant has been chosen
- the duration of involvement
- an explanation that the participant can decline the researcher's request
- step by step explanation of what will happen if the participant accepts their request
- any possible benefits, disadvantages or risks which the participant may encounter if they accept or refuse their request
- the researcher's contact details
- the contact details of the researcher's academic supervisors (if the researcher has a main supervisor and a co-supervisor, they are to provide contact details for both)

- an explanation of the confidentiality process
- where the researcher will be storing the data and its duration
- what will happen with the results of the research
- information about General Data Protection Regulation (GDPR) and the Malta Data Protection Act (2018)

Once and if the participant agrees to participate, the latter is expected to keep a copy of the participant information sheet and the consent form, and give the researcher a signed consent form, clearly outlining that the participant has fully understood and agreed to all that was outlined in the participant information letter.

If researchers are proposing research with minors, they need assent forms alongside consent forms. These assent forms need to be filled in by the minors. The parents or legal guardians of the minors also need to sign the consent form, even if they are not going to participate.

Confidentiality and anonymity

A researcher also needs to understand if they require to promise confidentiality and anonymity to their participants. We have observed from dissertation supervision that often students refer to confidentiality and anonymity interchangeably. This should not be the case. It is recommended that researchers discuss with their academic supervisor if they need to promise confidentiality - for example, through semi-structured interviews where a researcher would know the participant they are interviewing as they would be meeting the participant. It is also recommended that researchers discuss with their academic supervisor if they need to promise anonymity – for example, collecting responses through a questionnaire where the respondent is not expected to provide or sign in with an email address. Confidentiality is important in small island states like Malta (Schembri & Sciberras, 2020) as it would be very easy to identify the school or the participant if an extra detail is included in the study. A researcher is expected not to divulge such details if they have agreed with their academic supervisor that the name of the school where the research is being conducted would be kept confidential. If a researcher has promised that they will protect the school's identity or the identity of the participants, then this should be a priority. Compromising this will jeopardise the whole research process.

Avoid harm

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A researcher is expected to avoid causing moral harm to their participants. In fact, some school-based research may lead to moral harm to participants. Thus, researchers must tread carefully by continuously assessing the research process.

Moreover, a researcher is also expected to avoid business harm to the school setting or the College Network (in the case of State schools). A researcher needs to reflect if they wish to name the school or College Network or not, and the implications that this may have. How important is it that the name of the setting where the research is being conducted is divulged? How would the research change if the settings were to be named or not?

On being flexible - Potential limitations

A researcher is also invited to be flexible while embarking on school-based research. Researchers often encounter limitations before and during the school-based research is conducted, hence being aware of such limitations may smoothen the research process. In the following section, we outline several limitations based on our experiences or those of the students whom we have supervised whilst they carried out their school-based research.

Obtaining permission for data collection

A common limitation that frustrates researchers is the slow and, at times, bureaucratic process to obtain permission to collect data. Apart from lengthy waiting periods from the research ethics committees of the respective institutions, it is also noted that obtaining ethical approval from the school authorisation body tends to take time. It is suggested that researchers request approval for research ethics clearance as early as possible during the research process.

Reluctant schools

Another challenge that researchers may face is in a situation where they are denied access to the research setting due to reluctance from the schools to participate. It could be the case that Heads of School would not be willing to participate in particular research due to worries that this research may expose any weaknesses or faults within the school, and hence their performance as school managers would be highlighted. It could be the case that they would also be worried about what other stakeholders, such as higher authorities within the MFED or parents, would have to say about the research findings and the proposed recommendations. On the other hand, educators would be unwilling to participate in schoolbased research because if their weaknesses had to be highlighted, they may be seen as unprofessional, underperforming or not at par with other schools. It is suggested that researchers approach schools and introduce themselves as potential 'critical friends' rather than as 'inspectors' given that it may be the case that when schools feel invaded, they may show further reluctance to participate.

Recruiting the right sample

Another limitation which researchers may face has to do with the recruited sample. Numerous times, it has been noted that when a Head of School forwards a request for research (e.g. a request for interviews with educators), the same pool of educators would be interested in participating. This would somehow present an imbalanced reality in research in particular if the voices of those who are unwilling to participate are never heard or considered. Researchers are invited to discuss with their academic supervisors to find ways, if possible, how to elicit the voice of the unheard or to recruit participants who do not usually participate in school-based research. It is also strongly suggested that when a participant shows interest in participating in research, this participant would be recruited, and the data is collected straight away. This should be done to avoid missing out on potential participants who may lose interest in participating.

Uninterested schools

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Apart from being research-fatigued, schools in Malta may also be burdened with other requests related to teaching, learning and assessment. This may impact school-based research as this may seem unnecessary, additional or invasive.

Who's who in school-based research permission?

There is also a general feeling of not knowing exactly the body or individual who grants permission to a setting.

Here is a scenario that we have encountered as academic supervisors. A student we would be supervising obtains permission from the MREC, which clearly outlines the name of the school/s where the research is to be conducted. When the student contacts the respective school, the student is not granted permission from the Head of School to conduct the school-based research. This feels complex, contradictory and problematic. One may wonder, if the MREC has granted permission for the proposed school-based research, how can a Head of School deny access? As academic supervisors, we also believe a counter-argument would be valid: if a Head of School knows the school setting well (e.g. the amount of requests for data collection during a given period of time), then why is the Head of School not consulted before ethical permission is granted?

Other students felt torn in between when they were asked by the Head of School first to contact the Head of College Network or vice-versa. A Head of College Network is responsible for a cluster of primary and secondary schools in a particular catchment area. If we had to think in terms of line managers, a Head of College Network would be the line manager of a

Head of School. It is unclear if researchers just need the ethical permission of the MREC, or additionally that of the Head of College Network and/or that of the Head of School.

On being generous - Dissemination of findings

A researcher is also invited to be generous while embarking on school-based research. Educators often criticise the fact that they never acquire the findings of the research studies that they are involved in (Alibali & Nathan, 2010). Although one should appreciate the fact that research involves a long process, and thus results take quite some time to be written up by the researcher, it is through sharing these results that proactive change could take place.

Follow up with a letter of appreciation

For most research conducted in the field of education, participants are generally recruited voluntarily. Hence, researchers should appreciate the fact that recruited individuals have given up one of the most precious things on Earth, i.e. time to help the researcher gather data. In all cases, it would be appropriate for researchers to send a letter of appreciation to schools and participants (Alibali & Nathan, 2010).

Share the findings

It is also advisable that researchers share their findings with the participants, the school or the College Network where they have conducted the study. This can be done in various ways. A researcher can provide a lay summary of the findings and outline the recommendations clearly. A researcher may also ask the school to participate in a school's Community of Professional Educators (CoPE) session to share their findings with all the staff. If the research had to be conducted in more than one school within a College Network, a researcher could also request permission to attend a Council of Heads meeting so as to share their findings with all the Heads of School of that respective College Network.

A researcher may also wish to share their findings with the respective responsible person. Presuming a researcher has conducted school-based research about something related to Mathematics in a primary school. The researcher may wish to contact the respective Education Officer of that particular subject to share the findings, and potential recommendations, for the development of that particular subject. If on the other hand, a researcher has conducted school-based research about something related to curricular matters, they may wish to contact the respective Education Officer (Curriculum), depending on the College Network.

Researchers may also wish to share their findings with officials within the

MFED. A researcher can share results with the Permanent Secretary, the Director Generals, the Directors or the Assistant Directors, depending on the findings which emerge from the school-based research and whom they would be relevant for. All contact details, also outlining the key responsibilities per role, are available online on the MFED's website.

Publish the findings

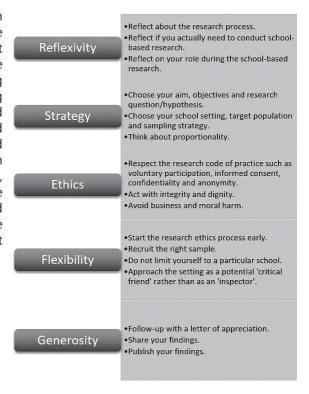
A researcher may also wish to publish their findings. This can be done more formally by publishing a research article in a journal. It is suggested that a researcher chooses the journal carefully. Alternatively, a researcher may choose to publish in an educational magazine, a newsletter, or a newspaper article in a more informal manner. Creating awareness about the findings is very important.

Whatever a researcher chooses to do, it is essential to remember that they are contributing and giving something back to the school or the community. Researchers are thus invited to be generous and disseminate their findings.

The Checklist

Following the discussion based on the five principles, we present a checklist that can be used before, during and after conducting the actual school-based research. As explained earlier, it is suggested that this checklist is seen non-hierarchical. as researchers and invited to go back and forth along the five principles. The checklist is also non-exhaustive.

Fig. 3: Checklist when conducting schoolbased research (Schembri & Sciberras, 2021)



Conclusion

When research in schools is carried out, outcomes in terms of the issues that underlie within the several layers that influence the child's development proposed by Bronfenbrenner (1979) are foreseeable. If knowledge deriving from school-based research is acted upon by all the stakeholders involved in the life of the learners, the educational experience of such learners could be positively impacted.

However, despite the exciting prospects, conducting school-based research in Malta presents several challenges. Some undergraduate and postgraduate students looking into the study areas linked to the educational system in Malta have no choice but to resort to gathering data from schools. Hence we are proposing this paper to smoothen the research process through the checklist being brought forward here; the guidelines of how to approach schools and the procedures which need to be followed to conduct school-based research. When the research process is smooth, positive relationships with educators and administrators are more likely to be maintained (Alibali & Nathan, 2010).

This practical guide can help school-based research to be conducted more efficiently, and potential researchers are invited to practice reflexivity, strategy, ethics, flexibility and generosity. When researchers are aware of and practice these five principles, schools may be more willing to allow, and participate in, school-based research, which in turn helps stakeholders better understand the school, and ultimately the life of the learners within the school.

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Strategies for the LSE in the multilingual inclusive primary classroom Karen Vin Camilleri and Valerie Lofaro Karen Vin Camilleri - kant5693@gmail.com authors' contact: Valerie Lofaro - valerie.lofaro@ilearn.edu.mt

Migration is a course of action taken by an individual, alone or with others, where people travel to a new place or country as a measure for improvement or progress, either temporarily or permanently, that brings about a radical social and cultural change, including issues of personal adjustment in contracting a new language or dialect, distinct legislations and regulations, unacquainted value systems and social customs, and multitude lifestyle changes. It is reported that migration is a challenging decision, as old as history and involves movement of people from all walks of life and backgrounds (Barowsky & McIntyre, 2010; Berry et al., 2006; Organista et al., 2003; UNICEF, 2016; Tong, 2002). The International Organization for Migration together with a number of scholars (Carling & Schewel, 2018; IOM, 2017, 2018; King, 2018; Salazar, 2018; UNICEF, 2016) indicate that migration engenders trade, cultural exchange, transfer of skills, knowledge, technology and considerable positive impact on productivity and economic growth.

Students may either be migrants themselves or born to recent migrants (Manzoni & Rolfe, 2019; Salazar, 2018). Salazar (2018) argues that such students might have experienced being bicultural or even multicultural. This phenomenon was the factor shaping the cultural identities they adopted. Immigrant students may have lived within various cultures for extended periods of time or, if they have parents whose cultures differ, they might consider themselves as bicultural. Salazar (2018) continues that a person does not choose whether one adopts a multicultural or a bicultural identity, but it arises out of an unconscious disposition; becoming multicultural or bicultural is not a deliberate option. The relationship between migrant status and mental health is complex and is determined by the new community and resettlement factors (Salazar, 2018; Diler et al., 2003). Manzoni and Rolfe (2019) hypothesize that over the years, students with an immigrant background have increased significantly. These students have either migrated as family with their parents or have been born in the resident country out of immigrant parents. Diler et al. (2003) argue that when the migration of a family takes place the students have no say; therefore this drastic change is imposed on them. Immigrant students transmit to the teaching environment the crucial decisions they have to take to adjust to the ever-changing situation, both at the cultural and ethnic level. Each student will decide the degree they will sustain vis-à-vis the personal values of their home culture that is essential to one's present identity and the extent to which the new culture is adopted (Cefai et al., 2019; Berry et al., 2006). According to Yeh et al., (2008), it is difficult for young students to acknowledge the need to readjust to the new reality and therefore, to modify somewhat their original identity. It takes a while to realise that without abandoning their link to their ethnic values, students need to become conversant with other cultures.

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Many researchers highlight the fact that, due to Malta's geographic and strategic position, the island serves as a crossroad for Europe, Africa and Asia. Scholars also claim that throughout the past millennia, Malta has hosted a mix of human races, customs and tongues. It has been an attractive destination for sea traders, military empires, tourists and more recently foreign workers and migrants (Cefai et al., 2019; Darmanin, 2013). Cefai et al. (2019) indicate that, during the first decades of the 21st century Europe and the Mediterranean have experienced a migration invasion, specifically from Africa and the Middle East.

Annually, Malta receives an influx of immigrants (Cefai et al., 2019; Caruana et al., 2019; Darmanin, 2013). As specified earlier, Cefai et al. (2019) demonstrate that during the last twenty years, there was an increase in migrants since Malta's position in the middle of the Mediterranean puts in on one of the three refugee routes from North Africa to Europe. Alongside refugees, Malta has also seen a high influx of economic migrants in the past five to eight years.

Cefai et al. (2019) note that the last decade denotes that 12% of the people residing on the island are non-Maltese and that the population has doubled due to the number of migrants living in Malta. They also conclude that the number of foreigners who settle in Malta cause the number of births to triple. They explain that the majority hail from Italy, Bulgaria and the United Kingdom. In 2018, the National Statistics Office (NSO) registered the number of non-EU nationals registered and residing in Malta as 27,238 – mostly coming from North and sub-Saharan Africa and the Middle East, Eastern Europe and Russia, the Philippines, China and India (NSO, 2018). More so, Eurostat (2021) reported that Malta's increase of foreigners has been from 9% in 2014, to 11% in 2016 and 14% in 2018.

The expanding population has brought opportunities and challenges for the country, with transients contributing to the country's economy, making Malta a more diverse, intercultural and cosmopolitan nation (Cefai et al., 2019). One of the main issues of this global motion of people has been the welfare of students (Castles, 2000; King, 2018). Researchers claim that in relation to education, migration promotes legislative responses, from planning and integration policies to rejection and hostility, which has become a significant challenge worldwide (Marsh & Dieckmann, 2017; Hart, 2014).

Towards the latter part of the second decade of the 21st century Malta was hosting around 9,000 foreign students between the ages of 3 and 18 and, according to the NSO (2018b), with numbers doubling over the last few years. The NSO (2021) statistically outlines that during the scholastic year 2018-2019, 46.4% of the registered school students were aged between

5 and 10 years of age, reaching a total of 26,788 students receiving compulsory primary education. Statistics denoted also that attendance in primary schools went up by a marked increase of 2.9%, of which 11% were students holding foreign citizenship (NSO, 2021). Moreover, the NSO concluded that students with a foreign nationality had increased by 16.5% over the previous scholastic year, out of which 55.8% were EU nationals.

Second language acquisition

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Language in itself is a factor that influences to a large extent both learning and the choices one makes to identify oneself culturally. Maltese primary schools are becoming increasingly multi-ethnic and super-diverse and several non-native students attending classes speak neither Maltese nor English in their households (Caruana et al., 2019). Due to this, in the presence of multilingual classrooms, lessons are often delivered in English and Maltese, with code-switching often taking place in an attempt to reach diverse students as much as possible. Maltese prevails where Arabic students are concerned whilst English is hoped to reach other students. As Caruana et al. (2019) argue, the use of the English language does not fill the gaps as migrant learners who are not proficient in the said language find difficulty to fully grasp the curriculum.

Learners learn in different ways. Some prefer a formal approach whilst others prefer spontaneous activities. The learning process involves many complex factors, and the LSE's personality, knowledge and competence all play a key role. Following is a brief introduction to some of the most well-known theories of Second Language Acquisition.

Shűtz (2019) explains Krashen's theory as a successful second learning of a language that occurs through five key hypotheses: acquisitionlearning, monitor, input, affective filter and natural order. Krashen defines 'the acquired system' and the 'learned system' as two foreign language approaches that do not depend on each other. The current perception is that 'learning' comes from a situation when the teacher dishes out information (deductive method), whereas 'acquisition' occurs when the student obtains information by induction. Acquisition is influenced by learning and this is explained by the 'monitor' hypothesis. Therefore, the purpose of the 'monitor' is to assess the level of grammar already grasped. Krashen implies that students speak fluently on the basis of the language acquired, whilst the learning system serves a check on the accuracy of the grammar being utilised. Practically, this monitoring has a role to enable the student to self-correct the chunks of language being used; the learner focuses on correctness and sound knowledge of the rule.

Krashen rules out that the 'monitor' has less importance in that it is used only to correct deviations from 'normal' speech and to give utterances a

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more 'polished' appearance. Moreover, Krashen reports that individual variation occurs between one language learner and another in that of 'monitor' use. The scholar states there is distinction between those who constantly use the 'monitor' known as over-users and those referred to as under-users, pertaining to those who prefer not to use their conscious knowledge. On the other hand, the optimal users are those individuals who use the 'monitor' in the most suitable manner. The academic points out that the person's psychological profile determines to which group they belong. Krashen explains that in general extroverts are the underusers whilst introverts and perfectionists are the over-users and that lack of confidence is mostly associated with the over-use of the 'monitor', as reported in Schütz (2019).

When the learner builds up knowledge whilst receiving fresh input, his second language competence improves from one stage to another. This process is well-explained by the 'input' hypothesis.

According to another of Krashen's hypothesis, the 'Affective Filter', some 'affective' variables play some roles to help the process of second language acquisition but these variables do not directly cause the process; they are 'non-causal'. The academic demonstrates that these affective variables include negative ones like anxiety but also positive ones like motivation, self-confidence and positive personality traits. Motivated learners who are self-confident generally tend to acquire a second language faster than others.

Research indicates that focusing exclusively on the languages of schooling is not enough. Zarate and Pineda (2014) and Caruana et al. (2019) suggest that in the near future this strategy will suffocate the preservation and promotion of the languages of origin of migrant learners, exposing the educational system to the risk of encountering cases of delayed achievement, dispersion and educational failure as other countries with longstanding immigration have already experienced. Furthermore, immigrant students may come across acculturation challenges due to their language and cultural identification. Zarate and Pineda (2014) state that once immigrant students speak their home language at home during their elementary years, it is likely that these individuals do well academically and will continue with their post-secondary studies. "Home language use is a 'package of variables', potentially reflecting multiple factors, such as acculturation, biculturalism and language proficiency" (Zarate & Pineda, 2014, p.2).

Scholars suggest that schools with a greater number of non-native English language learners may academically adapt better if mainstreamed whilst those who are still trying to acquire proficiency in the languages of

schooling should be grouped together as research has proven that these students score poorly on academic measures (Zarate & Pineda, 2014). Becerra (2012) states that when primary school systems label immigrant students as having behavioural or learning problems, more often than not such behaviours emerge because needs (such as language needs) of these students are not being met in the classroom due to lack of understanding of how to engage with them effectively.

Emotional and social issues for students with a migrant background Emotional Support

There have been many instances at studying systematically the hypothesis that immigrant students tend to be resilient more than native students in being accepted in another country. Apart from the language barrier, these students face a different educational system from that from which they have come. The psychological structures that were taken for granted in their home country will, in most cases, either vanish or be radically re-shaped. The identity which was ingrained in their persona suddenly faces the dilemma of changing for the sake of inclusion or else remaining socially ostracised (Suárez-Orozco, 2016; Hart, 2014; Marsh & Dieckmann, 2017).

The International Monetary Fund reports that refugees and unskilled migrants from outside the European Union (EU) are at risk of poverty in Malta (IMF, 2019), whereas a study on the subjective wellbeing of youngsters found that students not born in Malta were considerably more materially underprivileged than native ones (UNICEF, 2016; Rees, 2017).

In view of the rapid changes being experienced within the Maltese population, and the demanding situations which foreign youngsters may be facing in settling down and to become integrated in the said society, the Office of the Commissioner for Students and the Centre for Resilience and Socio-Emotional well-being tried to identify the academic, social and emotional needs of foreign youngsters living in Malta and thus draw up of a policy that can be thoroughly addressed (Cefai et al., 2019).

Acculturation and cultural identity

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It has been reported that multicultural students may have been born either within two cultures or have lived within diverse cultures shaping their own cultural identity. Many would thus consider themselves as bicultural either because they may have lived in different cultures throughout their life for extended periods of time or else identify themselves as multicultural because their parents hail from various countries and cultures (Salazar, 2018; Smith 2010).

Cultural roots and the effect of acculturation are significant for students

to keep up with, as these influence their identity. Tummala-Narra reveals how separation and grieving are part of an immigrant's internal experience as it is a process of negotiating losses as well as accommodating to a new culture. The experience of ambivalence about one's connection and/or disconnection with one's cultural origins and new cultural values and practices in the adopted land is thought to be part of the typical process of adjustment as an immigrant (Tummala-Narra, 2014).

The definition of culture given by Varnum and Grossmann (2017) indicates the continuous change in values, beliefs and attitudes according to changing events. It is modified to the extent that a group experiences a shift in learned behaviour. It is the pervading culture that will impact on the priorities that an individual gives. The way one thinks and behaves is influenced by that culture within which a person expresses oneself. When two cultures interact over a long period of time, resulting in a significant change on many levels, this is called acculturation. Rather than an exchange between the two, these scholars demonstrate that the process of acculturation can be divided in three stages: cultural identity development, behavioural adjustment and psychological adjustment. Varnum and Grossmann (2017) acknowledge that through acculturation students will develop an ethnic inclination in which they identify with their home traditions, a national orientation where the student chooses to identify with the mainstream culture, or a bicultural orientation where the student integrates with both. Chircop (2020) maintains that each bit that bicultural students retain of their cultural identity is a part belonging to their history and identity.

A study conducted by Makarova et al. (2015) indicates that acculturation inclination leads immigrant students to adjust better in school and that cultural identity, academic accomplishment, emotional acclimatization, behavioural accommodation and adaptation to school life are greatly highlighted by the process. Furthermore, Makarova et al. agree that bilingual students who highly develop bicultural identities are known to have a higher academic achievement, notable self-esteem and significant feelings of competence in welcoming and supportive school environments. Salazar (2018) indicates that if the immigrant student encounters discrimination or experiences a hostile environment at school, the child's outcome would be that of a negative bicultural identity. Makarova et al. thus imply that "educational settings need to establish healthy intercultural relationships, where minority students feel appreciated and supported in order to support young people's bicultural development" (Makarova et al., 2015, p.320).

Dardanyà and Gaitán (2017) observe that when an immigrant child has a multicultural or multi-ethnic identity, it may either be a source of confusion or of strength, continuing that the child may exhibit both

strength and confusion depending on the experiences with group memberships. Salazar (2018) observes that multi-ethnic students may find it challenging to identify and sort their belonging in a group due to cultural attitudes, values, perspectives and behaviours. The academic notes that when parents of primary school students teach their offspring their cultural values – denoting the merit of hard work, the importance of education, character development, respect and social responsibility – this will certainly be reflected further on in life whilst growing into acculturated adolescents.

Social and emotional support

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Scholars theorize that migration brings about a range of psychiatric disorders both in adults and in students, namely schizophrenia, depression, anxiety disorders and substance abuse. These academics claim that depression, anxiety, traumatic stress, low self-esteem, behavioural problems and compliance are factors that immigrant students present in schools (Diler et al., 2003; Dusi et al., 2014; Manzoni & Rolfe, 2019; 2018; Salazar, 2018; UNICEF, 2016). McIntyre et al. (2011) hold that an educator's lack of knowledge about cultural and immigration realities creates difficulties in determining whether a student is presenting an emotional or behavioural disorder, or else that such a behaviour is culturally acceptable to the newcomer thus reflecting a cultural marking.

According to Cefai et al. (2019) non-native students are liable to experience emotional difficulties and may feel underrepresented within the Maltese culture that may lead many to feel isolated and discriminated against. There is a prevalent feeling of being misunderstood and isolated within a strange culture to which they have been initiated without being prepared for the traumatic effect it might have on them. Research shows that students might feel depressed and excluded and experience a sense of rejection if they are discriminated against, but only if students are led to believe that to be different and unique is wrong in itself. If trauma arises out of a sense of being oppressed and discriminated, this can cause a kind of confusion as to whether it was advantageous to adopt the new culture (Makarova et al., 2014; Salazar, 2018; Smith 2010).

Both on the psychological level and the linguistic and social level, it can be very challenging to transition into a different educational setting (Marsh, 2016; Suárez-Orozco, 2019). It means that making new friends in a totally different environment which is not all that welcoming might be extremely difficult. This is exacerbated by the fact that old friendships have to be abandoned, a new schooling approach has to be adopted and the familiar support networks replaced by shaky ones (Dusi et al., 2014; Marsh, 2016; Yeh et al., 2008).

When migrant students manage to integrate well, this minimizes disruptions and leads to students integrating more to the new school and compete positively with other students (Jarvis et al., 2014; Marsh, 2016; 2014; Suárez-Orozco, 2019; Varnum & Grossmann, 2017). Salazar (2018) cites that students' sense of identity is formed by the dual impact of both cultures. Tummala-Narra (2014) highlights the lamentable process of being torn from the original culture to adopt the new culture, a process characterised by realising how much one has gained but at what cost.

Scholars allege that most Middle East/African students and some East Asians experience marginalisation which leads to considerable mental health difficulties (Cefai, 2019; Suárez-Orozco, 2019). Furthermore, these authors observe that this is coupled with being deprived of basic needs like food and clothing, living in over-crowded housing and having little knowledge of how to access the national social services. Therefore, immigrant students find it challenging to keep up with peers. As stated earlier, these students often face prejudice and discrimination (Borg, 2011). Additionally, researchers maintain that many multilingual students, particularly those hailing from the above-mentioned countries, reside in overcrowded apartments and centres, struggle with language barriers, may lack open spaces in their communities and have few Maltese friends (Cefai et al., 2019; Micallef Cann, 2013). Parents of foreign students may have to live on low income due to employment problems, limited education and/or rented housing (Diler et al., 2003; Manzoni & Rolfe, 2019; Suárez-Orozco, 2019). Cefai et al. (2019) claim that although the Maltese government offers plenty of help, some do not seek it either because they do not ask, for lack of awareness, or else due to the language barrier.

Nonetheless Bugeja (2012) emphasizes the fact that the Maltese educational system, which includes students of very young age, demonstrates vitality, gains and advantages from living in a multicultural domain. The researcher showed that all schools in Malta strive to facilitate ethnic integration. The author adds that Maltese and foreign students both study and play in an environment which induces integration. The scholar praises the achievements of the process of education that goes beyond just being tolerant to people of a different skin colour but to make students enthusiastic about the multicultural ideal.

In 2014 The Migrant Learners' Unit (MLU) was set up by the Maltese Government to support immigrant students in their first year of schooling in Malta. The induction programme offered by the MLU aims to integrate immigrant students more into the scholastic society whilst promoting learning (Schembri, 2020). These classes are feasible for these students to find stability and safety during difficult moments of their lives. Classes provide an environment of trust, respect and a space to work on students'

language skills so that these can communicate their emotions, thoughts, anxiety and ambitions, whilst working on their demeanour, and promote compassion (Farrugia Buhagiar et al., 2020).

Sense of belonging

Moro (2010) writes that human beings are anxious to satisfy their need to belong. It is far from easy for students who have been extracted against their will from tightly knit communities to switch over to impersonal multicultural Western societies. The sense of losing the security of the type of society they were born into may be psychologically hard (Suárez-Orozco, 2016). In order to promote a sense of belonging in primary classes and to increase social-academic integration and personal relationships with their peers it is considered important that these students need to start to master the language/s of schooling as their second language (Dusi et al., 2014).

Non-native primary school students residing in Malta who belong to a minority group may experience feelings of isolation, discrimination and a sense of rejection by the dominant culture (Cefai et al., 2019). Navarrete and Jenkins (2011) explain that students exposed to experiences of discrimination cause them to feel that their uniqueness and differences are wrong, thus increasing issues of depression, feelings of isolation and rejection.

Since travelling around the globe has become much easier, the world has become a small place, and therefore classrooms are more diverse than ever (Carling & Schewel, 2018; Cefai et al., 2019; Marsh, 2016). Multiculturalism personifies respect for diversity and acceptance of difference; thus, Learning Support Educators (LSEs) are encouraged to prepare for multicultural primary education and are invited to determine between curriculum and pedagogy programmes.

Bullying and cyberbullying

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As immigrant students start getting comfortable with their peers and surroundings, they embark on letting their guards down, hoping to have fun filled experiences in their schooling days. It can be observed that whilst for some the school learning experience is filled with joy, for other immigrant students school days may be fearful, embarrassing and occasions for bullying.

Cyber-bullying is a far-reaching approach that threatens immigrant students learning a new language. Unfortunately immigrant students may be easy targets for bullies in the classroom due to their language accents and cultural gestures that may be imitated, mocked and ridiculed. These attitudes may make immigrant students question their fundamental identity and birth right.

Successful strategies that can be adopted by the LSE to support social and emotional issues

LSEs are key interventionists in supporting immigrant students by providing socio-emotional support to sustain their language learning while addressing stress and anxiety issues that occur from time to time.

- i. It is the LSE's role to create a respectful atmosphere in the classroom where discussions pertaining to immigration are held.
- ii. Listening attentively is one of the major and most basic needs that immigrant students seek; the LSE is the perfect candidate for this role. Their parents may be going through high levels of stress; therefore, immigrant students find it even more challenging to open up with their parents for fear of stressing them out even more.
- Sharing with students a true relationship and a deep sense iii of care encourages immigrant students to share their worries and anxiousness. Through these precious moments the LSE obtains enough knowledge of what may be going on in the students' lives. Friendships may be initiated by looking for ways to check-in on students during breaktime, during group work, before or after school or during other classroom activities, always without setting immigrant students apart. During such conversations the LSE should be on the alert to maintain confidentiality so as to protect the immigrant student, by: avoiding drawing attention to immigrant students in front of their peers; making students aware that the LSE is available anytime should they feel the need to talk; the LSE's recognition of the challenges and difficulties the immigrant students would be facing in those moments; the LSE refraining from using clichés like "I am sure that everything will be fine" or "Everything will work out nicely", but would rather encourage the immigrant student to speak with the LSE whenever the need arises or will utter something like "That sounds really hard".
- iv. LSEs may also connect with immigrant students by communicating with them in their home language. When LSEs allow immigrant students to express their concerns and feelings regarding what they are experiencing, the same students would be building their trust in the LSE.

- v. Honesty is key for the LSE to build and maintain trust with immigrant students and their respective families.
- vi. The way LSEs interact and intervene with immigrant students has an important impact on the latter's motivation, achievement, self-image and behaviour that can make a difference in establishing a healthy intercultural identity. Researchers observe that such positive attitudes may also serve as a sheltering element in the progression of psychopathology (Couldrey & Herson, 2012; Hart, 2014; McIntyre et al., 2011).
- vii. The LSE is to understand that these multilingual students had neither option nor say to move from their mother country and might find difficulty to come to terms with their guardians' decisions (Couldrey & Herson, 2012; Makarova et al., 2015). Salazar (2018) argues that LSEs should also keep in mind that young immigrants may be experiencing losses and traumas associated to the move, reflecting also on their development of identity.
- viii. It is therefore of utmost importance that the LSE seeks out intrapersonal and inter-personal implications for recent immigrant students as this helps in perceiving and addressing psychological, emotional, social and educational issues related to language use and culturally-based learning, together with behavioural patterns (McIntyre et al., 2011; Suárez-Orozco, 2019), and ensure that their well-being is being met (Manzoni & Rolfe, 2019).
- ix. Another important role of the LSE would be to hear these students' voices by comprehending their socio-educational integration difficulties, which thus helps to design educational interventions according to their individual needs (Salazar, 2108; Marsh, 2016; Jarvis et al., 2014).
- x. The LSE may act as an interpreter during school or class meetings where in general talks are delivered in Maltese. This reduces anxiety and stress on the immigrant parents.
- xi. The LSE sets ground rules informing all students and their families, to be applied in the classroom/school setting and at home. These regulations are written and hung where they can be easily accessed by all students, acting as a prompt every time they see them.

- xii. The LSE shares clear examples with all the students as to what is considered bullying, while omitting specific incidents or students who may have been involved.
- xiii. The LSE will set and post consequences to make students aware that on any level bullying is unacceptable. Immigrant students may feel safer and relieved knowing that consequences for bullying have been set. This strategy will create a healthier environment whilst supporting immigrant students.
- xiv. The LSE makes sure that bullying notices are seen by all the students and their respective care givers. Immigrant students may demonstrate slight changes indicating that troubles are brewing under the surface.
- xv. When immigrant students share with the LSE bullying situations which they or their immigrant peers may have experienced, these should be taken seriously. Witnessing their peers being intimidated, fellow immigrant students may get as frightened as though it had happened to themselves. The necessary support should be given each time an LSE is informed of such situations.
- xvi. The LSE should inform the parents of immigrant students that they should never tell their offspring that intimidation is anticipated when residing in a new land, even though deep in their heart they believe that this might occur. Such information may cause immigrant students to get anxious and frightened, resulting in anger and traumatisation, leading to the building of grudges against the new country and its people. It is therefore very important that the LSE helps immigrant students to feel welcome and a part of the community.
- xvii. It is the LSE's duty to inform the SMT if abnormalities are observed. No one should make fun of accents, ethnic differences, ways of life and so on.
- xviii. If bullying towards immigrant students is suspected, the LSE will record in print what is happening following a thorough observation for a clear picture to be compiled. This gives the LSE the opportunity to speak about such issues with parents or students at the right time.

xix. Though intimidation may develop in any environment, it is well noted that immigrant students become easy targets for bullies. Thus, when the LSE and immigrant students unite against bullying, these students will feel more at ease to report incidents.

The languages of teaching and learning

Bilingualism in Malta

Although Maltese remains the most widely spoken language in Malta (COE, 2015), bilingualism of 'Maltese English', as referred to by the National Council for the Maltese Language, can be heard throughout the island, since code-switching is the norm, and suggests that bilingualism is a positive element that has not as yet been recognised (MEDE, 2021). Camilleri Grima (2013) concludes that bilingualism is an inherited strength which the education system in Malta must savour.

One appreciates the fact that many of the Maltese are bilingual through a strong educational system. The fact that Maltese nationals are bilingual, with Maltese being their first language (L1) and English their second (L2), puts them at an advantage since English is not just a global language but it is also the main language used for business, technology, tourism, entertainment and media (MEDE, 2012; COE, 2015). However, the National Council for the Maltese Language (Ministry of Education, 2009) insists that whilst promoting genuine bilingualism, where neither language is threatened, one should still aim to be proficient in both Maltese and English in their own separate ways, while adding that bilingualism should not only take place verbally but also in writing.

Languages of schooling in Malta

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Both Maltese and English are compulsory languages to be taught in Maltese primary schools, a requirement for students to become "effective communicators" through different languages as highlighted in the Early Years Outcomes 4 (MEDE, 2012,). As stipulated by the Council of Europe, the languages of schooling allow all students to gain access to the curriculum as a right for education (COE, 2006). Furthermore, the Maltese National Minimum Curriculum (NMC, 1999) asks for skills in both languages to be fully achieved by the end of compulsory schooling.

The Ministry of Education (1999) adhered to the separation of languages – Maltese as the base language to be used in the classroom and English for other subjects such as the sciences. Along the years it was deemed correct to make use of code-switching between Maltese and English during lessons only in case of difficulties (MEDE, 2012). However, the Language Education Policy Profile (COE, 2015) now states that code-switching is

always beneficial since the aim is for the students to learn, and insists "to ensure that language problems of any kind should not be an obstacle to the potential for pupils to learn or to express themselves" (COE, 2015, p.41). According to Schleppegrell (2012) school language varies from the way one communicates outside the school and asserts that languages are essential for learning.

In 'Language Teaching and Learning in Multilingual Classrooms' (European Commission, 2015) it is suggested that migrant students should be given the opportunity to acquire the language of instruction as quickly as possible in order to progress into higher education, to reach their full potential and to be on the same level as non-migrant peers, helping them to integrate fully with the local society (European Commission, 2019). As described by Moe (2017), the language of schooling is the language which all the students must use and relate to in their period of education. Moe remarks that although the language of schooling to migrants is a challenge to all subject teachers, this topic is hardly ever discussed in subject teaching education or in professional development sessions organized for school educators. Moreover, the LEPP (COE, 2015) reports that educators in Malta have very little knowledge regarding how to address migrant learners and the teaching of Maltese as a foreign language.

In 1979, Cummins claimed that the language of schooling was a blocking agent for vulnerable learners as this prevented them from reaching their full potential (Cummins, 1979). 'A Policy on Inclusive Education in Schools: Route to Quality Inclusion' (MEDE, 2019a) states that inclusion, which is a source of richness, must be applicable to all and not just to those with a disability, and that students must not be discriminated because of language diversity. MEDE (2019a) also declares that inclusive education should address students from migrant backgrounds through an environment that is flexible for their learning requirements, including support to enhance the learning of the languages of schooling in the Maltese islands – Maltese and English.

The National Inclusive Education Framework (MEDE, 2019b) holds that the person's first language should take priority in all methods of communication. Although it has been recognised that nearly all Maltese born citizens are bilingual in Maltese and English, one must not take for granted those Maltese students and their families whose only strength lies in the Maltese language. Therefore, all forms of communication should be done in both English and Maltese – such as delivery of homework, reports, distribution of forms to students and their families, the school's website and school activities.

Lauridsen and Lillemose (2015) confirm that nowadays the languages of schooling are vital in classrooms with students of various nationalities or different home languages, and that English is the medium language of delivery as also indicated by Wächter and Maiworm (2014). However, despite the availability of the English language in most countries, weight on the national language, which in Malta would be Maltese, should be emphasized and it is still essential for all the students to master it to some extent.

Submersion programmes

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According to Cummins (2009), 'submersion programmes' relate to when the language of instruction is totally different from the mother tongue of the students and their educators have no knowledge of how to communicate with them in their native language, hence assistance for comprehension of instructions and expressions are very limited. Such programmes are also known as 'sink-or-swim programmes' since learning depends on the ability of the student and what support is available for them outside school. Cummins (2009) confirms that through submersion programmes, students achieve good receptive skills in reading and listening but that productive skills in writing and speaking are restricted when it comes to grammar and selection of words. Cummins adds that submersion programmes are beneficial for all sorts of students and are fundamental for when students actually start to learn the language.

The European Commission document entitled 'Migrants in European Schools: Learning and Maintaining Languages' (European Commission, 2018) recommends that each member country must decide whether to place foreign speaking students into mainstream schooling with total immersion towards the languages of schooling or else to provide special classes emphasizing on the languages of schooling before entering mainstream education. Malta has opted for the latter, where students who have knowledge in neither Maltese nor English must first attend an Induction Hub for their first year of education in Malta in order to familiarize themselves with the official languages of Malta, to learn about the Maltese islands and its people. The Induction Programme is aimed for immigrant students who find our languages of schooling challenging (Farrugia Buhagiar et al., 2020; Schembri, 2020). Following this year's introduction, students will then start to attend a mainstream school according to the locality of residence, where the European Commission (2018) also recommends the continuation of support in the languages of schooling, either through pull-out sessions or in-class support. In Malta both strategies are provided by the educators who are known as complementary teachers but in-class support is also provided by the LSE who is assigned in the classroom.

Supporting languages of schooling

The European Commission (2018) recommends the use of Information and Communications Technology (ICT) to enhance foreign language learning. It also promotes 'Language Sensitive Teaching', reminding that "all teachers are language teachers", and therefore language development and learning should be continuous during all subject lessons and not just during language lessons. The importance of a whole school approach is highlighted, and suggests to all those close to the students, to engage in supporting the development of the languages of schooling.

Computer Assisted Language Learning is a student-centred approach which highly contributes to foreign language learning. According to Heelan et al. (2019), through the Universal Design for Learning (UDL), visuals and auditory programmes on computers bring about non-judgemental learning, thus limiting exposure to anxiety while creating a fun experience as indicated further on.

MEDE (2019b) proposes that the students' language of instruction should be "relevant and meaningful". The European Commission (2015) observes that support in the students' mother tongue is not always available and as a result, due to the lack of knowledge of the language of instruction, migrant students tend to be amongst early school leavers with low levels of attainment, without having reached their potential. Moreover, present assessment methods, which do not take into consideration language discrepancies, tend to place migrant students on the lower band of the educational system.

Since the European Commission (2015) also suggests support "outside the classroom", in Malta multilingual students can avail themselves of Klabb 3-16, which is an after-school programme where students are encouraged to participate in casual activities, with time allowed for homework to be carried out (Government of Malta, 2016). This is a great opportunity where multilingual students can reinforce the languages of schooling while forming new friendships and who, according to Vygotsky (1980), might also be able to provide peer tutoring in the zone of proximal development. Cefai et al. (2019) demonstrate how migrant learners find that learning English is not enough to get them acquainted with local peers and that learning Maltese is also a necessity to pursue friendships.

Successful strategies that can be adopted by the LSE to support languages of schooling

Often, LSEs note that some educators on a school or class visit give out their explanation of the day solely in English, taking it for granted that all the students understand English. Here, the role of the LSE is to draw the

educator's attention, but often the response would be that due to lack of time the lesson can only be done in one language, and the English language is understood by the majority of students. The LSE is then to support not only immigrant students with limited knowledge of the English language but also a minority of students in the classroom who are Maltese and have difficulties in comprehending the English language.

- i. The LSE is sometimes given feedback by the complementary teacher on how to best assist multilingual students in class and collaborative strategies will be implemented for cooperative learning to retain inclusion amongst all the students. This is often evident during language lessons, especially during comprehension tasks and creative writing. Research carried out by Hamilton-Jones and Vail (2014) has shown that collaboration between a classroom teacher and a special needs' educator working together in a classroom resulted in improved success of all the students in their class, while jointly increasing individualized support through modifications according to their students' requirements.
- ii. A simple strategy for the LSE to assist in better acquiring the languages of schooling is to prepare ahead the keywords identified for each lesson that would be taking place, given that all teachers are language teachers, irrelevant of the subject being taught, such as Mathematics. These would then be displayed in the classroom in a prominent place where the educators would define and use such vocabulary to illustrate the meaning. Exhibiting a sentence and utilising each word would then help the students to remember its meaning. Afterwards, the students will use these vocabularies amongst their peers through cooperative learning strategies set out for the day by the class teacher for the subject concerned. This strategy would be supporting both language and literacy development.
- iii. The Picture Word Inductive Model (Calhoun, 1999) is a visually aided strategy that addresses language learners, and which can be implemented by the LSE in order to facilitate the learning of languages of schooling. This can be done either through the setting up of charts on the classroom walls or done separately on project books with individual students.
- iv. Learning should be fun games play an important role in a multilingual environment. LSEs can prepare a word search or

crosswords in relevance to a topic being carried out in class that encourages all the students to learn in a delightful way. Providing board games is also one optimal method for the students to get together and to communicate in the languages of schooling. Older students in primary schools would benefit from tongue-twisters while scavenger hunts can be enjoyed by children of all ages.

- v. 'Drop everything and read' (Council of Europe, 1994-2021) is a suggested pleasant activity, where everyone, including the educators, just stop whatever is being done when the bell rings and start reading a book of their choice. The LSE can assist multilingual learners in choosing graded books according to their level of reading, so that reading would be utterly for pleasure.
- vi. The LSE can also assist multilingual students in the classroom in the setting up of Power Point Presentations for a 'show and tell' session. Such Power Point Presentations are quite popular in primary classes since students look forward to these preparations of personal interest. Students may relate to their favourite toy, games or past times. However, an ideal way is to include information reflecting their background, culture or experiences of a holiday in their country of birth or family of origin.
- vii. Yeganehpour (2016) explains how icebreakers can serve as a strategy that encourages speaking skills in foreign language learning. This strategy can be utilised by the class LSE to encourage the languages of schooling, especially with older students in primary schools. Yeganehpour suggests that icebreakers serve to develop communication skills, to build new friendships amongst educators and students with different cultural backgrounds and to form a sense of trust that will help to develop healthy relationships. When creating icebreakers LSEs are required to keep them simple, open-ended to allow freedom of expression, relevant, exciting and neither long nor short. Icebreakers which can also take the form of discussions are also fun activities that reduce stress and anxiety, especially in newcomers, as noted by Yeganehpour (2016).
- viii. LSEs can assist in arranging a buddy system which, according to "International Buddy System" (2013), would help migrant students to feel at home and to build new friendships. Such

meetings do not entail any obligations, but multilingual students would then find it easier to join in various school groups that carry out several activities throughout the scholastic year.

- ix. Bilingual books in Maltese and English are a smart way to promote reading in the languages of schooling in Malta. Books, such as the New Zealand series of 'Milly and Molly' by Gill Pittard, that treat various multicultural values, have been produced in both languages as bilingual books, having been translated by the Maltese author Frans A. Attard. To assist multilingual learners in the classroom LSEs can follow the parents' and teachers' guide sections of these books, along with worksheets that are readily available, and topsy-turvy dolls that support ethnic diversity.¹
- x. The Ministry for Education and Employment (MEDE, 2021) is also building up online² resources specifically designed for students who consider Maltese as a foreign language. For the LSE in the classroom, aided by an interactive whiteboard and the students' tablet, this website proves to be quite efficient in targeting students with a multilingual background to help master the early learning stages of the Maltese language. Interactive games, conversational skills, reading skills and worksheets are also available on this learning tool. Moreover, an assessment tool in the Learning Outcomes Framework (LOF) is now also available to target Maltese as a foreign language (MEDE, 2021).

However, Esser (2006) suggests that for academic achievement to take place, the language of schooling must be present at home. In this respect, the 'I Belong' programme (Gauci & Mifsud, 2021) is an integration initiative that provides language courses in Maltese and English to all adult migrant applicants who would in return be of support to their children attending local schools.

Funds of knowledge

For a whole school development approach, the National Inclusive Education Framework, (MEDE, 2019b) entails that each school should respect the value of inclusion in its mission statement and that the requirements of the school's population are met in its policies and actions.

Sollars (2006) specifies that the mother tongue is obtained to achieve

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 $^{^1\} http://www.millymolly.net/About\%20 Us\%20 Books.html$

https://malti.skola.edu.mt/rizorsi-tal-malti-ghall-barranin-fil-livell-tal-induction-primarja/

one's need in the immediate environment and since language learning is an innate process in the early years, growing up with more than one language remains a simple and natural process. The researcher adds that for additional language learning to succeed, the students' learning style and former knowledge must be respected. This would also include their funds of knowledge, which Comber and Kamler (2004) remark, not only assists in matching class activities according to their students' interests, but also contributes to changing the educators' point of view and approach towards the communities of their students. Street (2005) reports that the "funds of knowledge for teaching project" actually require the educators to physically enter the family homes, a concept which in Malta exists only in exceptional cases, mainly for intervention. Moll and González (1994) asked school educators to become researchers and suggested that educators should aim to deepen the relationships with the families and not just gather information from them.

Hedges et al. (2011) emphasize the need for educators to familiarise themselves with their students' families and communities in order to learn more about their interests, which are not all about play, while Moll et al. (1992) refer to funds of knowledge as the "skills and strategies" undertaken by a family. Riojas-Cortez (2001) included culture, language, values, beliefs, disciplinary methods and significance of education in the terms of funds of knowledge and Gonzales et al. (2005) added family activities to the description.

Gittings (1995) writes about her personal experiences of the funds of knowledge in special education and admits that the most challenging part was to convince the families to share their knowledge, even though this was to be of great benefit for the students themselves. However, through perseverance, the scholar claims that making use of the funds of knowledge provides positive outcomes, noticing especially improvement in student behaviour and self-esteem.

Successful strategies that can be adopted by LSEs for languages classroom support

The European Commission concludes that assistance for multilingual learners should be continuous, not only to assist with language development but also to help access the curriculum (EC, 2015). To enable this, specialized educators and teaching assistants, who in Malta have the role of Learning Support Educators (LSEs), are required to note the following.

i. To abide by the National Inclusive Education Framework (MEDE, 2019b), since it has already been established that Maltese

nationals are very often multilingual, LSEs who provide support in classes with the presence of multilingual students can easily facilitate their learning by translating or giving explanations in one's own language through translanguaging, whenever this is possible. As declared by the Independent Schools Association, such provisions are made to elite migrant learners (COE, 2015). This refers mostly to Italian and sometimes also German, French or Spanish speaking students, since these are the most frequently learnt languages in the Maltese educational system (MEDE, 2012). However, no provisions are made for non-elite migrant learners who often hail from countries beyond Europe (COE, 2015).

- ii. Hesson et al. (2014) urge the use of a "multilingual word wall" in the classroom to capture the students' visual attention. The LSE can prepare the keywords of the week ahead by writing down each word on the front of a pocket together with synonyms inside. With the class students' assistance, the LSE could also display the keywords with relevant pictures, when possible, in multiple languages according to the students' home languages, thus facilitating translanguaging. Such a method is not only restricted to language lessons but could also be applied to other subjects such as Mathematics.
- iii. Hesson et al. (2014) further recommend "Cognate charts" where students write down words that sound alike. In the primary classroom the LSE can arrange for this to be done since relevance between Maltese, Italian and Arabic language has already been established at an earlier stage and such would be an example for multilingual students in Maltese primary schools.

English	Maltese	Italian	Arabic
cat	qattus	gatto	qith قط

Fig. 1: Cognate Chart

iv. The Frayer model is another strategy that has been noted to work out for translanguaging by Hesson et al. (2014), which the LSE and the class teacher could work upon together with their students, especially with vocabulary that might be difficult to remember, such as during a science activity.

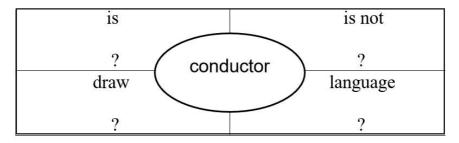


Fig. 2: Frayer Model

- v. LSEs in the classrooms can see that when students of the same language, other than the languages of schooling, feel the need to speak in their home language with their peers, one can do so with a show of hands for 'time-out for home-language', as suggested by Ticheloven et al. (2019). Duarte (2020) reports how students who possess diverse language abilities are to greet one another in their home language and gradually the number of words would increase, a strategy that could easily be adopted by the LSE and the class teacher.
- vi. A study carried out by Rowe (2018) gave six principles that can be used by the LSE and the class teacher alike.
 - a. It is suggested that educators should appreciate the students' home languages and cultures not just verbally but also through their actions, using bilingual books, discussions and the involvement of parents.
 - b. Modelling translanguaging, either of other previously acquired linguistic skills or by including a phrase from the students' repertoire, would make the students feel more valued.
 - c. Educators should integrate translanguaging in the curricula and provide opportunities for the multilingual students in the class to share not only amongst themselves but also during activities for an audience. Maltese primary schools often have audiences for children's concerts.
 - d. Although Rowe (2018) points out that translanguaging and translating are two different matters altogether, translating is an opportunity for translanguaging to take place. Multilingual texts and recordings are even suggested for students who have no knowledge of their home language alphabet or writing skills.

- e. Exposing the students' work in multilingualism and works done incorporating translanguaging will continue to empower the students to use their home language. Classrooms in Malta have their own specific areas for displaying works carried out by the class.
- f. Finally, Rowe (2018) recommends that the students' multilingualism expertise should also be brought to multilingual audiences that appreciate such language abilities.

Following these strategies the scholar concludes that translanguaging helps the students to go on with what they have in mind, without stopping. They no longer feel marginalized but encourage their peers to do the same when the language of schooling becomes restrictive.

- vii. Hemming et al. (2018) observe that educators are not normally trained to address the diverse needs of multilingual students according to their faiths. Educators must remember to observe cultural and religious issues when teaching, without causing any offence. LSEs can see that multilingual students are encouraged to worship according to their religious faith in their home language without any prejudice, which in Malta such instances happen during the daily morning assembly and before lunch breaks.
- Through own experience, Rowe (2018) recounts how essential it viii. is to let the students know that they are welcome to speak in their home language. This was encouraged using multilingual readaloud books, bilingual books or even books that include codeswitching. In their interview with the director of the Piñata Press, Kanellos et al. (2002) noted that apart from offering language acquisition, bilingual books merit hidden agendas. These might include respect for diversity, inclusion, culture, folklore, selfesteem and social issues. LSEs can propose to have such books available in the school library, or even better, in the class library, through the literacy programme representative of the school. Nowadays foreign language books that are suitable for young children can be found at the Central Library in Floriana, Malta, but there is still the need for such books to be available in local primary schools.

ix. Writing through own experience, Street (2005) found that providing topics for "the funds of knowledge writing project" enabled the students to provide him with an insight about themselves, their families, homes and cultures, while going through the classroom assisting the students individually. Such a task can easily be carried out by an LSE, especially during the writing of a journal, which involves the students to write freely, without being assessed. Then, once the writing is done, a student is free to share this with the rest of the peers, thus providing one another with first-hand knowledge. If an LSE would carry out such a task, this would be of great benefit as sharing such knowledge with the class teacher assists in amending the curricula accordingly.

Washington's K-12 education system (Office of the Superintendent of Public Instruction, OSPI, 2021) highly promotes the funds of knowledge and even provides suggestions how this can take place in various ways.

- x. During a Maths lesson an LSE can ask students originating from abroad to provide their home currency and work together on calculations. Sharing this with local peers would be interesting to learn about foreign currency in a didactic way.
- xi. Social Studies in primary education is an optimal subject that allows all the students in a classroom to share their cultures. An LSE can assist in providing clear maps and details of relevant countries and cities; or even assist in preparing projects together which could also include flags, places of interest and prominent persons of the country. A topic typically covered in Social Studies is 'traditions' and this is a section which could easily include the participation of parents as suggested in the NCF (MEDE, 2012).
- xii. An extracurricular activity that is immensely enjoyed by students of all ages is that of cookery. Multilingual students can discuss with the class LSE any favourite national dishes or treats that can be easily prepared at school, a fun-filled activity which is always appreciated by the students and educators alike. The LSE will in return organize preparations together with the application of a lesson plan in order to make the activity a cross-curricular one. An alternative would be for the family of the students to send to school a traditional home-made baked item, providing some

relevant details to share with the classroom. The whole class would be able to experience new tastes involving different ingredients which one might not be so familiar with in Maltese homes.

- xiii. When it comes to language lessons, a welcoming invitation would be for a multilingual student to invite a member of the family and demonstrate a conversation. Together, the LSE and the class teacher can plan a topic which the student and the guest could talk about during a brief conversation in their home language. This could be done in such a way where the rest of the class would try to guess what is being said.
- xiv. The LSE can promote the importance of multilingualism by seeing that necessary information is provided for all the educators in the school, students and their parents, through the setting up of banners or posters, such as the one provided by the ECML (COE, 1994-2021) which is available in various languages and including some that are not European.
- xv. To facilitate in assisting multilingual students in the classroom, the OSPI (2021), recommends the implementation of a 'Funds of Knowledge Inventory Matrix', a form which the LSE could easily articulate so as to familiarize oneself with multilingual students at the start of a scholastic year. Such a form would include a list of topics related to the funds of knowledge with relevant home practices and then strategies that can be applied in the classroom.

Funds of knowledge community practices

i unus or knownedge community practices					
Funds of Knowledge	Home/Community	Classroom Application			
	Practices				
Economics					
Geography					
Politics					
Agriculture					
Sports					
Technology					
Religion					
Language					
Health					
Childcare					
Art					
Cooking					
Entertainment					
?					

Figure 3 – Funds of Knowledge Inventory Matrix

- xvi. In a document published in 2008 by UNESCO it is suggested that educators should make their students aware that amongst them are children that speak a different language at home. Students are encouraged to talk about themselves, their families and cultures, and maybe also teach their colleagues a few words in their home language, recite short stories and sing songs or nursery rhymes.
- xvii. In older primary classes where music idols are very popular, peers could introduce and share their favourite local artists and music variations.
- xviii. It is recommended that educators organize workshops inviting parents to emphasize the passing on of the mother tongue to their children, despite living in a different country.
- xix. Drawings with captions in the home language should be displayed not only inside the school building but also outside, and in prominent buildings such as the local councils and parks, to make the local community aware of the rich cultures that surround them.

All the above are strategies that could be set up by the LSE and the class teacher together.

Finally, Hesson et al. (2014) insist that all educators will do well to let go of their strict control and become active listeners to allow their students to express themselves freely, so that all the educators and the students in the classroom will engage themselves in both roles.

Teaching styles and learning styles

There are various approaches that LSEs adopt in the Primary School setting when dealing with multilingual students. These educators promote two-way communication and do their best to ensure that these students participate fully. Highlighting the immigrant students' strengths is an asset in promoting learning.

Apart from learning the languages of schooling as means of communication, it would also be wise that immigrant students take part in writing programmes, sports, Information Technology (IT) programmes, art, drawing, dance, song and music to further enhance inclusion in their new abode (Wright, 2020). Researchers report that arts education can help improve novel and imaginative abilities of the community; recognize and develop social and cultural wellbeing, promote social responsibility, enhance social cohesion, cultural diversity and intercultural dialogue; and

foster the capacity to respond to major global challenges from peace to sustainability (Lenette et al., 2015; Manzoni & Rolfe, 2019; Marsh, 2016; Marsh & Dieckmann, 2017; Taylor & Sidhu, 2011; UNESCO, 2010; UNICEF 2016; Vougiokalou et al., 2019).

Possible strategies that LSEs can adopt to support students' different teaching and learning styles

- i. The Universal Design for Learning (UDL) is the ideal tool for the LSE to use with all students, including immigrant students, as this motivates them to participate and learn through different means of representation, engagement, action and expression, further enhancing their development and learning progress.
- ii. Expectations for communication are clarified and encouraged through a variation of means. Students may ask questions through different forms of online discussions with the LSE. Anonymous questions may be asked and answered by the LSE by setting up a question box.
- iii. The LSE provides extra visual and oral support during presentation of information and rephrases to help students comprehend ideas. Further explanations may be organized, keywords and phrases are clearly marked as important information. In addition to classroom communication, written materials are supplemented. The LSE may record class sessions and send them to students to listen to them in the comfort of their home.
- iv. The LSE may ask immigrant students to fill an online survey or fill in cards with information about themselves to get to know them better. Students are also encouraged to speak to the LSE to express their feelings when the need arises.
- v. The LSE is to provide ample time for asking questions, encouraging participation by being clear what participation means and setting rules for participating and discussing. Asking one question at a time, allowing time for reasoning and replying is to be implemented by the LSE. The LSE may plan a series of questions to help the students' critical thinking. Asking questions to students so that they may be able to recall given information to apply further knowledge and/or evaluate what has been learnt is also the LSE's prerogative.

- vi. Ideally the LSE will encourage students to participate in discussions by giving them ample time to prepare for them. Also, students may be given the opportunity to write a question or answer. The LSE in liaison with the teacher will provide key questions to be discussed in small groups before a full class discussion takes place. The LSE may either provide discussion questions in advance or ask the immigrant students to prepare questions before coming to class.
- vii. The LSE is an active listener to immigrant students by concentrating on what students are communicating, allowing them to express themselves and by being attentive to verbal and gestural cues.
- viii. The LSE will react to students' writing, goals and principles through reasoning and clearly indicates assessment standards. The LSE will exhibit previous student assignments and precise instructions regarding the length of the expected work by encouraging classwork. To further motivate students the LSE will upgrade writing tasks and design questions according to the students' needs.
- ix. Students are asked to share their writing task within a small group. The LSE will help students to trace patterns of repetition in language errors instead of marking errors. Students are then given the opportunity to apply the feedback provided by the LSE, revising their assignment.
- x. The LSE will reinforce reading by assisting students in recognising major issues in the text and exhibits how the book they are reading corresponds to other texts they might have already read. The LSE will also support the students to recognize the novel and unaccustomed, providing applicable information as regards to text and author. Moreover, further in-class discussion questions bring out principal ideas.
- xi. The LSE will either translate reading or ask the students to do so to check for understanding, ask students to point out key ideas whilst reading, and to summarize. Then, to further enhance understanding, the LSE will set up quizzes. Older students will be encouraged to ask questions to themselves regarding the text.

- xii. The LSE will basically endeavour to introduce music in the class as a characteristic aspect of its more extensive setting by utilizing the proper materials like projects, visual aids, slides, pictures and other elements whilst providing background information about the relevant society, history, religion, art and their daily living. Each musical excerpt from every specific country retains a 'story'.
- xiii. Live sessions through Skype could be arranged by the LSE and class teacher and/or the peripatetic music teacher to take place with a foreign school where songs are taught by the class and vice-versa, enhancing language learning. In the process of coaching students to sing new songs, each experience will focus on communicating a pedagogically-sound appreciation of the musical content and the cultural background by fostering multinational methods whereas the learner grasps both the genre of a particular country and its culture. The LSE will employ collaborative practices and the blended approach when teaching music from various countries, exploring and creating diversity where multilingual and multicultural opportunities strengthen and embrace diversity.
- xiv. eTwinning sessions amongst European schools may be encouraged by the LSE and the class teacher to promote cultural and language diversity.
- xv. The LSE will stimulate migrant students to participate in online word games, that apart from creating enthusiasm will also instigate new vocabulary.
- xvi. In the primary school the LSE can easily identify gifted students excelling in sport abilities during PE lessons and during break times while running in the yard, whereas the physical educator (PE teacher) can notify the parents of such results. As cited earlier, the child may develop abilities further in clubs as an extracurricular activity, followed by entering the National Sports School in the secondary years.

Discussion and conclusion

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Multilingual students currently living in Maltese society go through a transformation which they also bring with them into the primary classroom as multilinguals of diverse faiths and cultures, being students coming from alternative familial structures (Chircop, 2019).

LSEs wish to see more of the above listed activities and strategies in the primary classrooms to reach the needs of non-native students. As educators, LSEs need the necessary skills and support to enhance a higher integration of both Maltese learners and multilingual students in classrooms (Seguna, 2020). Training LSEs to adapt to interculturalism and diversification within local multilingual classes will further stimulate inclusion, interculturalism and empowerment of all learners (Seguna, 2020). The present authors also conclude that through further training LSEs should develop an understanding of art forms in relation to the countries from which immigrant students derive. Furthermore, LSEs should appreciate how different cultures promote different values. They can do so only if they delve into the artistic base of each culture, both in its traditional form and its current state. They need to become literate in the arts that these cultures and practices offer. Finally, LSEs should familiarize themselves with the diverse languages encountered in the primary multilingual classrooms. Studies have revealed that LSEs should receive multilingual training and that multicultural syllabi are imperative in Malta's primary multilingual classrooms (Debono, 2020; Schembri, 2020). The European Commission (EC, 2015) affirms that when the LSE interacts with students in their classroom with the same mother tongue, studies show that these students improve their language competences. Furthermore, the European Commission (2015) believes that students benefit markedly when supported by LSEs of the same ethnic origin, who are reported to demonstrate positive attitudes towards education and progression. Arnot et al. (2014) maintain that LSEs are vital to multilingual students as the latter are not only supported in their language development, but the acquisition of knowledge of other subjects is also enhanced. Moreover, the LSE assists several multilingual students to access the curriculum in the classroom, besides providing resources for the teacher (EC, 2015). Since non-native students are facing many challenges (Caruana & Francalanza, 2013; Eurydice, 2019;), the one-size-fits-all curriculum should be renounced (Schembri, 2020).

Furthermore, the UDL is the tool of choice to integrate all stakeholders in the multilingual, inclusive primary classroom as each learner exhibits diverse preferences, characteristics, needs and abilities that affect academic performance and individualistic learning experiences (Al-Azawei et al., 2016). The value of this tool is to help students move beyond the usual barriers and have access to the material contained in the curriculum relevant to their grade by active participation which, in turn, enhances their development and learning progress (Ralabate & Berquist, 2020).

The increase in the number of multilingual students currently in Maltese classrooms has led to a transformation of identity, since students hail from

alternative familial structures. Therefore, the authors of this study feel that further research should continue to explore how culture and language shape an individual's identity in the multilingual inclusive primary classroom and how these factors affect students' wellbeing. The LSE's role is to provide further support to these students in the languages of schooling so as to facilitate integration and inclusion. Ideally, LSEs should be multilingual themselves in order to support students in their home languages. Moreover, LSEs believe that performing and visual arts should be included in the primary class general curriculum to accommodate an increasingly multicultural student population. Specific art education programmes combining multicultural content could be implemented through various school grades, instilling in the young students ideas of equality, multicultural understanding and harmonious coexistence.

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Planning for success or ordered chaos? Perceptions of middle school teachers vis-à-vis the 'One Tablet Per Child' initiative Simon Caruana and Nic Mifsud authors' contact: Simon Caruana - simon.caruana@its.edu.mt

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Introduction

The aim of this study is to investigate the perceptions of middle school teachers directly involved in the use of mobile devices in an educational context. Knowledge of these perceptions will better equip the senior leadership teams (SLT) to create the necessary conditions for such an initiative to be supported and successfully implemented by the teachers, who together with the students are the main adopters of the innovation. This notion clearly transpires in Fullan's and Stiegelbauer's works, which argue that educational change depends on what teachers think and do (Fuller & Stiegelbauer, 1991).

Previous studies on perceptions of teachers *prior* to the introduction of the innovation were not identified within the local milieu. Similarly, not much has been written in this regard internationally and current studies concentrate on the benefits and value of the tablet per child or TPCs (Lim, 2011). Understanding and creating conditions under which such initiatives are embraced remains a high priority research issue. The Innovation Diffusion Theory (IDT) provides the conceptual framework for this study as it reviews the factors that influence the adoption of an innovation.

Hence, this study sets the objective to suggest a possible course of action, a road map of how to better implement the OTPC (one tablet per child) in the Lasallian middle schools with insights obtained from teachers' perceptions before the actual implementation and thus increasing the possibility of a favourable implementation of the innovation. This would improve the SLT's position when implementing this innovation within the middle schools of the two Lasallian colleges in Malta.

Literature review

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It is a widely acknowledged fact that the introduction of ICT elements within an educational context has increased drastically over the last couple of decades proving it to be an important tool for learning. Similarly, it can transform and enhance the learning environment and diversify methods that enable teaching and learning to occur (Niemi, et al., 2014). The purpose of this study was to explore the perceptions and attitudes of middle school teachers vis-à-vis the possible implementation of the OTPC initiative, originally introduced in primary schools in 2013.

It is therefore critical to understand and review well established predictive theories which focus on the adoption or rejection of a technological innovation. It is equally important to review the local and European policies which refer to the importance of infusing Information Communication Technology (ICT) strategies within an educational context in order to reach a myriad of set objectives. Additionally, a review of the school-climate in

relation to ICT related innovations will help set the context for the study. An outlook on professional staff development will also be presented as it is considered to be an important factor for a successful diffusion of technology within an educational context (Bonanno, 2011).

ICT implementation strategies

ICT related initiatives within our education setting considerably followed Heppell's suggested sequential evolution of educational computing. Heppell (1993) describes the stages as follows:

Stage One. Topicality: ICT was seen as a subject per se. This meant that it was distinct and independent from any other topic or subject being taught at school, enabling it to gain a slot within the timetable.

Stage Two. Surrogacy: the next stage, characterised by a multitude of software being authored with the prime intention to "deliver those parts of the curriculum that were thought to benefit from the stimulus and interactivity offered by a computer screen" (p. 230). Educational Software installed on the computer or run off floppy disks or CD ROMs included 'Thinking Things', 'Mega Maths Blaster' and 'Science House'.

Stage Three. Progression: the next step was the introduction of what we referred to as application packages such as word processors, spreadsheets database and communications packages. There was the introduction of ICDL which became ECDL once Malta joined the EU in 2004.

Stage Four. Pedagogic Evolution: in essence this stage, which is still in its infancy, "requires us to be aware that computers not only bring something new to the learning environment but that they change it and they change learners too" (p. 233).

Reference to Heppell's stage four is indirectly solicited in the policies by the notion of modifying the term 'eLearning' to 'Digital Literacy', which implies that ICT would cease to be considered as a singular and isolated subject, having a slot in the time-table and becoming integrated within the curriculum at large.

Yelland (2006) argued that integration of ICT within an education context does not essentially mean digitizing educational material but goes much beyond that. She stated that teachers need to create contexts for "authentic learning that use the new technologies in integrated and meaningful ways to enhance the production of knowledge and the communications and dissemination of ideas" (p. 122).

These notions present important challenges to both teachers and school administrators alike. Teachers left to fend on their own will never succeed in this endeavour since the needs will be diverse and complex in nature.

This is echoed in Debattista (2015), who stated that "teacher support is essential" for a successful implementation. The school leadership teams need to play an important role in the implementation of digital innovations. Cascio & Montealegre (2016) have put this notion in context when they argue that "digital technology is rapidly becoming as infrastructural as electricity" (p. 350). If one analyses the level of dependency on computer systems in a school today and the amount of monetary investment in hardware, software and training, it is natural that school leadership teams (SLT) need to give it its due importance. Duca (2017) stipulates that "Ownership can be promoted by having a clear educational leadership at all systemic levels" (p. 41).

Professional development considerations

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According to various scholars cited by Li et al. (2010) ICT innovations within an educational context are highly dependent on a number of factors such as teachers' attitudes and beliefs, skills and pedagogies, assessment, available resources, school culture, professional development and leadership. Professional development and as such its dependency on school leadership merits further discussion as this too, forms part of the conceptual framework for this study.

Bonanno's 5-dimension model in assessing teacher readiness

Over the years, many studies have been conducted with the prime objective to measure the level of ICT readiness of employees. This analysis helped the management to better plan staff development training which addressed the true needs of their workforce. It also helped to improve the company policies in relation to technological advancements (Pullicino, 2012). These measures have developed over the years in such a way as to facilitate the acquisition of a true snapshot of ICT readiness within a school setting (Bonanno, 2011; Pullicino, 2012).

Bonanno (2011) synthesizes a number of studies into a single 5-dimension model. He argues that the overall culture determines the pedagogical approach, which in turn defines the environment within the institution and its community. The dimensions include: the cultural dimension, the environmental dimension, the pedagogical dimension, the technological dimension, and the psychological dimension. Each of these dimensions will be outlined in more detail.

The cultural dimension: This refers to a "teacher's frame of mind" as being influenced by the surrounding national and institutional cultures. It is the particular culture, or it could also be argued that the school ethos is what determines the policies, curriculum and design of the learning systems and the use of technology within this educational context.

The environmental dimension: This takes into consideration a variety of obstacles which hinder the successful integration of ICT within the educational institution. These obstacles include: availability of resources at hand, institutional and administrative policies, attitudes of the teaching community and professional development opportunities.

The pedagogical dimension: This dimension relates to the possibilities that are offered by technology integration to the learning and teaching practices at school, both within the classroom setup and beyond. UNESCO (2011) identifies three levels of integration, each focusing on a particular pedagogical aspect: technological literacy – concerned mainly with the technological uptake of students by incorporating the teaching of technology skills within the curriculum; knowledge deepening – that focuses on developing a problem-solving ability to complex real world problems; and finally, knowledge-creation – that aims to develop students who can innovate, produce and benefit from new knowledge.

The technological dimension: This dimension relates to the competencies that teachers can acquire in order to take full advantage of what technology has to offer in an educational context. It considers how technology can improve a student's effective learning and how to use such innovations in different classroom settings. It also considers how ICT can be adopted as an assessment tool

The psychological dimension: Bonnano (2011) states that this dimension is perhaps the strongest determinant of an individual's readiness to integrate technology in one's personal and professional context. In essence, this dimension concerns the predictive theories discussed at length in this article, as it includes the personal beliefs and attitudes towards technology.

Methodology

Background

In 2013 national policy makers decided to launch the OTPC project within a primary school context starting a three-year staggered process from the fourth year of primary schooling followed by years five and six respectively. This study aims to identify the perceptions middle school teachers have in relation to the possible implementation of similar technological innovations. These perceptions are consequently analysed and corroborated against the Innovation Diffusion Theory. Thus, SLTs at the Lasallian colleges will be better equipped to create the necessary conditions for such an initiative to be supported and adopted by the players themselves – the teachers. This notion clearly transpires in Fullan's and Stiegelbauer's works, which argue that educational change depends on what teachers think and do (Fuller & Stiegelbauer, 1991).

The design of the research project

The design chosen for this study identifies itself best with a qualitative research methodology. It is argued that modern research has started moving away from "hard and fast" differentiation between qualitative and quantitative research, but nonetheless the majority of the researchers still align themselves according to the philosophical frameworks they use to conduct their studies. The different frameworks reflect the assumptions the researcher makes about the phenomenon being studied and the ways in which findings are used. Furthermore, different frameworks make further assumptions on which research method fits best to extend one's knowledge about education (Lodico et al., 2010).

Instrumentation

Initially it was decided that face-to-face interviews would be done at the location of employment of the participant. Nonetheless, due to the COVID-19 pandemic at the time of data collection, this was not possible anymore. As a result, data collection had to be carried out via electronic means. Therefore the planned face-to-face interviews changed to online interviews or e-interviews as defined by Salmons (2012), using MS Teams. This platform became popular during the pandemic as it was the main platform used by the vast majority of teachers in Malta during this time. It furnished the opportunity to conduct synchronous communication between the interviewer and interviewee, particularly by providing an immersive 3-D environment in which communication was done through audio and video and thus having both a visual and an audio exchange, very similar to face-to-face situations (Salmons, 2012).

Ethical considerations

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In a qualitative approach, data collection might appear to be intrusive (Cresswell & Cresswell, 2017). The research study was thoroughly explained to the participant both in writing and verbally before the e-interview. They were given the opportunity, in multiple instances to put forward any queries they might have had. Written permission from the governing institutions including the Secretariat for Catholic Education (SfCE) and the Lasallian Educational Mission was sought and granted. A participant consent form was also authored and distributed to all the participants. These were filled in, returned to the researcher and will be kept on file for the retention period as stipulated at design level for GDPR reasons. The data collection protocols were also communicated at the beginning of the e-interview with special attention to the retention period of the audio and visual data recorded. Confidentiality is also a prime concern particularly because the sample sizing and the cohort from which the participants were chosen is very much identifiable. Codes were assigned

to every participant and the only identifiable data shared within the code is an identification of the cluster.

Data analysis process

The approach to data analysis for this study was done in line with qualitative approaches, meaning that the researcher converted the verbal recorded e-interviews into transcripts (McGregor, 2018). This process was done using Otter.ai which, apart from assisting in the transcript production, also offered a management platform for the recordings of the e-interviews.

Ary et al. (2010) argue that data analysis is the most complex and timeconsuming process within the research study due to the fact that typically, qualitative data collection produces massive amounts of data.

An interim analysis process was adopted, meaning that data collection and analysis occurred at the same time. Even though the e-interview was being recorded and transcribed, notes of keywords were taken during the interview which would facilitate the analysis process once all data is collected. This process helps the researcher to gain deeper understanding of their research study (McGregor, 2018).

Findings

Analysis Procedure

The following section presents the process undertaken by the researcher in order to intuit the themes and sub-themes which emerge from the raw data collected through the e-interviews. Once all the e-interviews were transcribed, the coding and reducing process was initiated. Firstly, the data was open coded, meaning that the general concepts encountered were programmed. A list of themes was generated each of which will be discussed in the next sections.

Theme 1: Compatibility – Personal belief

Rogers (1995) defines compatibility as the degree by which an innovation is in line with a number of critical aspects of the adopter in question. He argues that the more the innovation is in line with these aspects, the better are the chances for adoption of the innovation being introduced. The aspects include: (i) consistency with one's existing values, (ii) past experiences, and (iii) the need for innovation.

The *system* in this study is understood to be not just the direct adopters of the innovations, that is the teachers, but also the line managers and ultimately the members of the SLT.

The reference to 'norms' and other 'system levels' are taken to be a direct reference to the school ethos. It was interesting to learn that all members

of the SLT are in sync and agree that, if properly implemented, such technological innovation can be of great advantage particularly to the students thus making it the way forward:

a modern school ethos, which aims to try and motivate all students to learn, which tries to, you know, stretch students to learn as much as possible, which tries to give them 21st century skills, which tries to make them as much as possible literate in e-skills in today's worlds, OTPC can be a very strong tool. (SLT3)

Consistency with one's values is a factor which is attributed to compatibility. It was interesting to notice that amongst the millennials within the interviewed cohort, clear traits of stage 4 (being *pedagogical evolution*) as illustrated by Heppell (1993) are clearly being implemented.

T1-7 describes how he uses his personal interest in gaming and adopts it as a pedagogical tool with which to address content in English literature.

I'm an avid gamer. And there are certain lessons in English, especially with literature, where I use gaming in my teaching more in particular, for example *Assassin's Creed*. I use it to show the students what life was like back in the days of the literature book in question, which is *Oliver Twist*. And the game I am mentioning is based in Victorian London. And it also features certain characters like Charles Dickens, obviously an even better, you know, thing. And the kids obviously love it; it's a very tangible way to understand what life was like, obviously virtually. And it gets them really engaged as well. They like it. So, yeah, that's one of the many examples I use. (T1-7)

For *educational digital migrants*, as discussed in the previous section, comparison with past experiences also plays an important part in the adoption or not of the technological innovation. Some teachers expressed concern in this regard. One particular teacher stated issues of entitlement.

And I stood somewhere literally, like between the pros and the cons. It was very very, that was a very tough decision because on the one hand, I am very pro. But on the other hand, my background, you know, brings me to think of those who are less fortunate. (T5-7)

Finally, a very common argumentation and a legitimate sense of scepticism can be felt in the reply to the researcher's question regarding the adoption of new technologies.

In this I am a bit... Not sure. In this sense, and this was always my question mark, big question mark, [...] are we adding value to our education in student's achievement? (T7-8)

Theme 2: Relative advantages

Diffusion researchers argue that relative advantage is one of the strongest predictors of adoption together with compatibility. Relative advantage relates to the degree of how much an innovation is perceived to be better than the system it succeeds. Rogers (1995) argues that although advantages are measured against economical gains, it can also be done in 'other ways'. Advantages referred to by the interviewees relate to mainly advantages experienced by students, by teachers and finally by the school in general, as a means to move towards a shared vision of the school ethos.

Perhaps one of the most common advantages perceived by interviewees is that such an innovation would particularly appeal to students because it is the language they speak. All the research participants agreed that the motivational levels of the students will drastically increase.

[...] And it's, of course, living in such a digital era, it is more appealing to the students, you know, a pen and paper, it doesn't work, it's not appealing anymore. When you're surrounded in such a clicking environment, you know, I click I see... I don't like, off to the next. (T5-7)

Theme 3: Complexity and barriers

The characteristic of complexity relates to the degree to which an innovation is perceived to be difficult to use and to understand. Rogers (1995) acknowledges the fact that certain innovations are "readily comprehended by most members of a social system" (p. 51). The data analysis showed clear alignment with this notion because none of the teachers reported any particular concern on the knowledge of how to operate a tablet or any other computer device.

In certain cases, teachers report that device usage has become a central part of their life and that its usage has become 'crucial' both for their professional and personal life.

I make a lot of use of my phone. It's obviously... part of our lives as probably you know, and I'm also an avid gamer. So I make use of, you know, a desktop computer as well. And I obviously use a laptop and I also have a tablet. So, it's quite a central part to my life. (T1-7)

Teachers exhibited a number of concerns regarding adoption within the educational setup. Some of the concerns are truly pedagogical. Teachers showed concern about how they will adopt the innovation in order to teach certain subject content perceived to be somewhat tricky.

[...] but I have certain queries, for example as regards geography, the subject which I teach. And see this: we have, for example, map work,

we have diagram drawing, we have graph plotting... how will that be possible? (T3-8)

Another common concern was that of time. Teachers and SLT members feel that plenty of time needs to be invested in order to prepare for the lessons which, in some cases, need a total overhaul.

Let me take my subject to science, there's a big amount, our large number of resources that can be found and to be cool, because they can do guizzes and input and so on. But these things need time to prepare and to find. [...] and you can't actually plan for it, because it's very difficult to plan and change your plans during the year to be effective. (T4-8)

A particular concern relates to the importance of using the technological device in a way in which students truly take advantage of and not merely become a source of disturbance.

[...] we need to obviously find ways to avoid students wasting their time with the tablet, because I feel that that's one of the things that will be a wall for teachers, students will start wasting time; they'll be using the tablet for anything but the lesson. (T1-7)

Theme 4: Observability and trialability

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Observability is another characteristic of innovation. It relates to the degree to which the results of an innovation are visible to others. A number of teachers have experienced this as parents and therefore their perceptions were formed first-hand through the adoption of the innovation by their children's teacher.

I have my own children, as in if I didn't have my own kids I would be totally in the dark basically. (T5-7)

Even though the majority of the teachers did not have first-hand experience of the OTPC project implemented in the junior schools of the same college, they still formed an opinion from hearsay as stated by the teachers themselves. The following are some negative attributions given to the innovation as implemented in the junior school.

As a tool, again, I can think I can do much more as it is just a software holder. (T5-7)

On the other hand, T1-7 reported that he could observe positive traits in students he teaches, brought about as a result of the technological innovation in question.

I'll be very honest; I am not that much in depth. However, I obviously am aware of the project. And I obviously feel that students were comfortable using that. Now I'm teaching some of the students that yes, yes. And they mentioned it very often that they had the tablet and everything was there and whatever. Quite frankly, my perception was a very positive one from the boys that I am teaching at the moment. So, as I said, I don't know that much about how it was done, what was going on. But what I can tell you is what I heard about it was very positive. (T1-7)

Theme 5: Preparedness

The final theme encompasses the level of preparedness of teachers but also of other stakeholders within the educational system under study. As illustrated by Bonanno (2011), technology acceptance is highly affected by other variables as well. The 5-dimensional model devised by Bonanno will serve as a structure to analyse the raw data gathered from the interviewees.

1 – The first dimension that will be analysed is the *cultural dimension*, which refers to the teacher's frame of mind as it is influenced by the surrounding cultures, particularly that of the institution with whom s/he is employed. It is clear from the interviews that technological innovations are given great importance and are in line with the school's ethos. SLT3, who is involved in the SLT teams of both colleges under study, makes this unequivocally clear.

I don't think in today's world schools can afford to cut themselves off from technology and the internet. But they need to try and work with their students to give them the skills they need to use this in a powerful way for them to develop 21st century skills. It's not easy, but that's the challenge. (SLT3)

2 – The second is the *environmental dimension*. It is one of the more critical dimensions as it relates to the obstacles that possibly hinder the successful integration of technological innovations within an educational context. Bonanno (2011) lists a number of obstacles such as availability of resources, attitudes of the teaching community and professional development, all of which feature in the raw data collected for this study.

Once that is done I will... provide the teachers with a decent computer. Once they have a good internet system and a good computer, it should already help ease the way a bit easier. (SLT2)

Another reported obstacle is the attitude of the teaching community visà-vis the technological innovations. From the data collected it is clear that the attitude is generally positive with only a few sceptical arguments.

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It's the way forward, and we'll have to accept it. And I like it. If it improves things, and makes things easier, and the kids still learn, and they learn as they should, I see no reason why we shouldn't go on with it. (T3-8)

The final obstacle relates to the professional development opportunities offered by the school and the interest shown by the members of staff in their own professional development in relation to technological innovations. Once more, the SLT members are positive that the teachers are prepared to embrace such an initiative even though a clear sense of caution can be read.

One, one problem that it would address for sure is any teacher who still has some problems, actually, using ICT skills, we'll have to really polish their act up. And we have been trying to get everybody on board and thankfully, in our school, we don't really have that many problems. (SLT1)

3 – The third is the *pedagogical dimension* which relates to the integration of ICT within the main practice of a school, that of teaching and learning. The three levels of integration as identified by UNESCO (2011) could be extrapolated from some of the teachers' experiences in the usage of ICT in a similar context.

The need for technological literacy is important as the students would require the necessary skills to operate the device. This also highlights the need for students' preparedness for the introduction of such an innovation. Teachers agree that this level of preparedness is high in the cohort they have at school and it is directly attributable to the fact that these students experienced the OTPC when they were in the junior school.

Today, a year and a half later, I will say thank God that we have our kids up and ready for this because they can deal with it... Maltese kids and our school kids... from year four up didn't find a problem to deal with it. (SLT1)

Knowledge deepening and creation are another level of integration and the research has identified two very interesting examples which exhibit such knowledge acquisition.

I have two students in particular who are very good, and they're taking their MATSEC, who have bought equipment, like a little tablet, that has this software, that they can have digital artworks, and they're very good at doing them. I myself, don't have this knowledge, because I've never used this software. So, I think they will be teaching me how to use them. I don't know. It sounds strange. But as a teacher, I am constantly learning from my students and exchanging. (T8-8)

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This pedagogical approach is a clear and explicit instance of a teacher who uses a more student-centred pedagogy; tends to use digital technologies more than teachers who do not use such an approach. T1-7 departs from the interests of the students and builds the lesson around that interest. This approach also resonates with what Bonanno (2011) declares, that such an approach produces a creative learner.

4 – The fourth, or the *technological dimension*, relates to the competencies teachers can and need to acquire to take full advantage of the innovation being proposed. The most common reference observed was with the *technological knowledge*, which relates to the knowledge regarding the device, and resources available. This is attested also by Kozma et al. (2011) who stress that skills-based training is needed as an initial step. Teachers were very clear about this notion.

So, first of all, I think the best thing to do is have some sort of course for teachers to properly understand how the tablet works, and what features are available, etc. (T1-7)

What was also interesting was that some teachers made reference to the fact that they need training on the pedagogical aspect. In other words, they feel the need for training in what is referred to as the *Pedagogical Content Knowledge*, that is, they need to understand the best practices to teach their subject content using technological innovations at hand.

Okay, the proper, proper professional learning, not only in the technical side of it, but in the way it can be infused in the... syllabus in the curriculum. (T7-8)

5 – The fifth and final dimension relates to the *psychological dimension*, which indicates the beliefs and perceptions of the teacher himself/herself. This has already been discussed in themes one to four.

Conclusions

The study clearly showed levels of alignment with both the Innovation Diffusion Theory coined by Rogers in 1962 and other derived theories thereafter together with the framework devised by Bonanno regarding assessment of preparedness of teachers in regard to the technological innovations within an educational context. The study reaffirms that out of the five characteristics of IDT the two most important are relative advantage and compatibility (McGregor, 2018).

As a result of the analysis, it was established that these two characteristics are intertwined and closely dependent on each other. Moreover, compatibility to one's belief is highly dependent on the level of perceived advantages an innovation offers prior to implementation. The third

variable, which perhaps consolidates this affirmation, is the pandemic situation which rocked the whole of the educational sphere not only nationally but also around the world.

This situation and the 'new' needs it brought with it challenged well established paradigms both at personal belief levels and generational discourse regarding adoption of technological innovations. The study depicts how participants who were totally against technological innovations within the educational context changed their minds once they saw how much the innovation had a positive impact on the transition from a face-to-face or in-person education structure to an online educational system. This clearly augurs well when an OTPC innovation will be implemented.

Another interesting factor observed is the inversely proportional relationship between the actual training on such technologies given to the teachers and the demand of teachers for such training. It was a common feeling that such training is not being done and teachers feel they are not well equipped to face the new challenges in the classroom.

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