

2023

Teachers' perceptions of student engagement and active learning implementation in a national private school in Egypt: laying the foundation for the 21st century skills

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BOSTON UNIVERSITY
WHEELLOCK COLLEGE OF EDUCATION & HUMAN DEVELOPMENT

Dissertation

**TEACHERS' PERCEPTIONS OF STUDENT ENGAGEMENT
AND ACTIVE LEARNING IMPLEMENTATION IN A
NATIONAL PRIVATE SCHOOL IN EGYPT:
LAYING THE FOUNDATION FOR THE 21ST CENTURY SKILLS**

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Submitted in partial fulfillment of the
requirements for the degree of
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2023

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DEDICATION

This work is dedicated to:

My late grandfather, Ahmed Elkabbany, who inspired many through his passion and compassion. He was a true role model in the education field in Egypt, dedicating his life to making a difference in the lives of countless students. I am proud to have had such an incredible person as my grandfather, and his legacy will continue to live on through the impact he made on others.

ACKNOWLEDGMENTS

I would like to express my sincere gratitude and appreciation to all those who have supported me throughout the journey of completing this dissertation. First and foremost, I am deeply thankful to my committee for their guidance, feedback, and encouragement. Thank you, Dr. Robert Weintraub, for all your support and for not allowing me to quit. Thank you, Dr. Pipier Smith-Mumford, for your guidance and for pushing me forward. Thank you, Dr. Stacy Scott, for your support. Without your expertise and guidance, this dissertation would not have been possible.

I would also like to extend my thanks to my cohort and friends, who have provided invaluable insights, advice, and support. In addition, I am grateful to the participants who participated in my research and generously shared their time, experiences, and perspectives.

Most importantly, I would like to acknowledge the love, patience, and support of my family. Their unwavering belief in me and my work has been a source of motivation and inspiration throughout my journey. This journey would not have been completed without the love and support of my husband, Amin Marei; my mother-in-law, Azza; and my parents, Naglaa and Mohamed Elkabbany, who supported me through the past three years with all its ups and downs. Thank you all for your contributions and support.

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ABSTRACT

This study explored teachers' perceptions of active learning implementation focusing on the challenges and opportunities they face to effectively implement active learning in a low-income private school in Giza, Egypt. A qualitative case study was utilized to understand teachers' lived experiences implementing students' active learning. The study was guided by five research questions: (1) How do teachers perceive the implementation of active learning as a pedagogical approach? (2) What challenges and opportunities do they face when implementing active learning? (3) How does students active learning impact collaboration among teachers? (4) Do teachers feel supported in implementing active learning? Why or why not? (5) What supports do teachers and administrators believe are needed for active learning to succeed?

The study involved triangulating between the data collected through classroom observations and in-depth semi-structured one-on-one interviews. The data analysis led to four main findings to support the effective implementation of active learning. First, teachers need a supportive, flexible school leader to lead the vision for the efficient

implementation of active learning while facilitating solutions for possible challenges. Second, offering teachers professional development opportunities that are tailored to their needs is essential for their ability to nurture their pedagogical approach for implementing active learning. Third, many teachers need more support in developing a collective understanding of PBL as a pedagogical approach that utilizes students active learning and its requirements while having a sense of agency in constructing a definition that is relevant to their context. Fourth, teachers' understanding of active learning seemed to focus more on the engagement with the content rather than collaborative peer-to-peer engagement.

This study contributes to the educational field by providing a more comprehensive understanding of the factors that influence pedagogical change in low-income settings in Egypt specifically, and in the Global South more broadly. Moreover, the study highlights the importance of the school leadership role in the effective implementation of active learning.

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CHAPTER ONE: Introduction

Rationale of the Study

Overpopulated classrooms, private tutoring, an educational system with limited resources, underpaid teachers, and a lack of basic reading and writing skills among school children are all prevalent problems of Egypt's crumbling educational system. Egypt is a low-income country with the largest education system in the Middle East (El Baradei, 2015). The Egyptian education system follows the K–12 structure, children start their schooling at the primary level at the age of six years old (Purinton, 2016).

The centralized Ministry of Education controls the education policies and practices of the public school system, which serves 92% of the student population (UNESCO, 2015; Purinton, 2016). On the other hand, the private school system consists of religious schools, private language schools, private international schools, and private national schools (Mohamed, Skinner & Trines, 2019). The vast majority of the tuition of Egyptian private schools is around 1,000 Egyptian pounds per year (\$112), which is relatively affordable compared to the average household income of \$3,450 per year (Abdelrahman et al., 2021). Compared to the free public school system, these schools promise parents a higher quality education, smaller classroom size, but still at an affordable price. They positioned themselves as a better quality alternative, which has made them increasingly popular (WENR, 2019).

Unfortunately, for the last three decades, the education quality of public schools in Egypt has drastically declined (El Baradei, 2015). For example, in the 2014 Global Competitiveness Report, researchers ranked Egypt's primary education system as the

worst system out of 148 countries (World Economic Forum, 2014; El Baradei, 2015). As a result, Egypt's Ministry of Education took action, and in 2017 drafted its strategic plan for developing generations of students with "21st-century" skills and capabilities (Eltawil, 2018).

Teachers' primary instructional methods, in most public and private low-income schools "is dominated by an approach to instruction that is teacher-dominated, repetitive, and concentrates too much on rote learning and literal recall of information" (OECD, 2015). Teachers contend with low-resourced environments, low salaries, and insufficient professional development. Therefore, they have little incentive to support their students' learning beyond common rote learning pedagogies that prioritize passing tests through memorization instead of understanding. Schools and teachers lose sight of a quality education that prioritize teaching collaboration, communication, and critical thinking skills and instead focus on test scores.

The beginning of the 21st century marked the initiation of significant collaborations between the Egyptian government and multilateral organizations, and donor agencies to improve the quality of the education system (Megahed et al., 2008). Many of these efforts, such as the USAID-funded Education Reform Program (ERP), have explicitly focused on promoting active learning pedagogies (Badran & Toprak, 2020). According to experts (Ginsburg et al., 2008; Awad, 2020; Badran et al., 2020), many teachers are unable to implement active learning pedagogies, showing a need for more research to be conducted focusing on the lived experiences of teachers in implementing active learning that promotes students' engagement in their learning.

I plan to study teachers' lived experiences in implementing active learning and examining the challenges and opportunities they face to implement active learning. The study's findings will add to the current body of literature by informing new and experienced teachers and administrators about students' engagement and active learning. The study can improve experiences for teachers and provide valuable insight for developing training programs at schools.

Active Learning

Active learning pedagogies represent a teaching model that highlights minimal teacher lecturing or direct transmission of factual knowledge, multiple small group activities that engage students in discovery learning or problem-solving, and frequent student questions and discussions" (Ginsburg & Megahed, 2008). There are two dimensions of active learning: the behavioral dimension, which focuses on students being engaged through verbal or physical behavior, and the cognitive dimension, which focuses on the degree to which teaching strategies enable students to employ various forms/levels of thinking (Barrow, Boyle, Leu, Pier, & Price-Rom, 2007; Ginsburg & Megahed, 2008):

Active learning focuses on scaffolding students' active learning rather than viewing them as passive receivers of knowledge. Accordingly, it offers students opportunities to engage in-class and take control and ownership of their learning under the teacher's guidance through various activities, discussions, debates, and other collaborative learning experiences. (Bell, 2010)

According to Gunther (2006), the Egyptian education system is still predominantly memorization-oriented, even though research shows the effectiveness of active learning.

Voogt and Roblin (2010) stated that collaboration, communication, critical thinking, and problem-solving are essential tools for thriving in the twenty-first century. Thus, schools must reimagine how to educate children best to thrive in an ever-changing world. Badran and Toprak (2020), studying teacher professional development in Egypt, suggested teachers need to change their teaching from teacher-centered to student-centered practices. In this student-centered approach, students become active learners who are critically engaged in their knowledge construction. Moreover, students are encouraged to utilize higher-order thinking skills, such as analysis, synthesis, and evaluation through active learning (Bonwell & Eison, 1991).

Mohamed and Skinner (2019) stated, in Egypt, "30 percent of school children are estimated to lack basic skills for reading and writing, and most of them live in rural regions". During the past four years, Minister of Education, Dr. Tarek Shawki, oversaw some changes. Under his tenure, more schools were built to solve the issue of overpopulated classrooms. However, The Egyptian Ministry of Education, faced with all these infrastructural and resource challenges, has limited bandwidth to monitor what happens within the classroom and the pedagogical approaches teachers adopt. Accordingly, despite curricular and instructional decisions being centralized at the Ministry level (except for international schools), implementing these decisions takes a lot of work to enforce and review (Baradei, 2015). According to Silva (2008) & David (2020), "leaders in government, business, and higher education are calling for today's students to show a mastery of broader and more sophisticated skills like evaluating and analyzing information and thinking creatively about how to solve real-world problems."

Research has shown that promoting active learning presents an effective strategy for mastering these coveted skills (Christensen & Knezek, 2017).

Active Learning and Project-Based Learning

In this study, I focused on active learning and how teachers perceived implementing active learning and how PBL could be used as an example of a pedagogy that utilizes students active learning to build higher order skills needed to succeed in the 21st century. PBL is one of the most popular in-class instructional strategies promoting active learning (Ferreira & Canedo, 2020). PBL is a pedagogical approach that allows students to learn by doing and applying ideas. It is based on the constructivist findings that students gain a deeper understanding of material when they actively construct their understanding by working with and using ideas” (Krajcik, 2006). Students in active learning classrooms outperform those in traditional direct instruction programs (Petersen& Gorman, 2015; Karaçalli & Korur, 2014; Anazifa & Djukri, 2017). Furthermore, they learn real-world skills and analytic thinking (Bell, 2010; Karaçalli & Korur, 2014; Anazifa & Djukri, 2017).

In his qualitative case study on students' perception of PBL in a school that focuses on teaching Science, Technology, Engineering, and Mathematics (STEM) in Egypt, Elfarargy (2016) argued that students were able to view PBL's impact on their learning favorably. They were more likely to collaborate in a PBL setting (Elfarargy, 2016). Other researchers emphasized the importance of students' learning skills, such as critical thinking and analysis (Mishra & Mehta, 2017). Bell (2010) argued that PBL effectively introduced and improved 21st-century skills in the classroom. Finally, several studies

showed that through PBL, students became better researchers, problem solvers, and higher-order thinkers (Chen & Yang, 2019; Ummah, In'am & Azmi, 2019).

One of the challenges that the education system in Egypt faces is that "30 percent of public-school children are estimated to lack basic skills for reading and writing, and most of them live in rural areas" (WENR, 2019). Most of these schools are public and low-income private schools. As a result, Egyptian educators need to focus on enhancing their in-class instruction, pedagogical approach, and content knowledge, which will significantly impact the education system in Egypt. In a study done by Rivet and Krajcik (2004), students in Project-based learning achieved improvement in overall learning outcomes. They showed improvement in their understanding as well as increased ability to apply information to new situations, which shows higher thinking skills. Research supports that having students engaged in their learning cooperatively "results in higher achievement, greater retention, more positive feelings about each other and the subject matter, and stronger academic self-esteem, compared to competitive and individualistic learning." (Johnson & Johnson, 2008)

Students active learning helps them learn skills needed to succeed in the long run, such as problem-solving skills, critical and creative skills, lifetime learning, communication skills, teamwork, adaptation to changes, and self-evaluation skills (Anazifa, 2017, p. 347). The research available strongly supports students active learning significance. And, due to the Egyptian education system's dire condition it is urgent to conduct this research in Egyptian schools. The results might lead to vital changes that positively impact students and the education infrastructure.

This study focused on teachers' experiences and perceptions in implementing active learning in their classrooms. In particular, this case study focuses on teachers' perceptions of active learning as a pedagogical approach, and the challenges and opportunities associated with its implementation, in a low-income private elementary school in Giza, Egypt.

Significant research has been done on the importance of students active learning and its effectiveness. By capturing the experiences of teachers in implementing active learning in a low-income private school in Egypt and providing a better understanding of their perception of implementing active learning, this study may inform teachers, administrators, and policymakers who have little experience and training with active learning and inform current and new teachers and administrators who plan to implement students active learning as an instructional model.

Research Questions

There are many pedagogies that utilize active learning and to better study active learning it is useful to look at one of the major pedagogies that utilize active learning as the main pillar for instruction, which is PBL. Most studies on the topic of PBL implementation focus on settings outside of elementary school (MacMath, Sivia, & Britton, 2017). There is even less research done on understanding the impact of PBL in Egypt, specifically, and the Middle East more broadly. According to Nastovska (2013), "there is a scarce body of literature and research that focuses on teachers' and administrators' experience with PBL."

Therefore, there is a need for further research on teacher perceptions about their experience of student engagement and active learning implementation that could lead to more defined pedagogy such as PBL in the elementary setting. Teachers are the primary factor in students active learning success, since they implement it. Schools and educators can better determine how to successfully implement PBL by understanding teachers' perceptions of active learning. Therefore, it is crucial to study their perception, the challenges, and the opportunities they face so educators can improve active learning implementation that leads to PBL.

The following research questions guided this study:

1. How do teachers perceive the implementation of active learning as a pedagogical approach?
2. What challenges and opportunities do they face when implementing active learning?
3. How does students active learning impact collaboration among teachers?
4. Do teachers feel supported to implement active learning? Why or why not?
5. What supports do teachers and administrators believe are needed for active learning to succeed?

Significance of Study

The results of this study will provide implications and insights about teachers' perceptions and experiences of implementing active learning that will offer recommendations for policymakers, teachers, and school leaders to seek, promote, and support instruction in the education system. Leaders will better understand how to create

conditions where students active learning can be successfully implemented from these insights into teachers' perception. This study will contribute to the field of education by helping leaders better understand how to create conditions where active learning and students' engagement can be implemented as a successful curriculum intervention in schools where there are limited resources, specifically in the context of a low-income school.

The study took place in Al-Dar school in a rural area in Giza, Egypt which serves a student population whose families are of low socioeconomic status and, therefore, can only afford to pay low tuition. The Egyptian Ministry of Education sets the school curriculum. And, the High Council of Pre-University Education government committee is responsible for national examinations, curricula, the development and provision of textbooks, teaching materials, and other matters (WENR,2019). I want to study how teachers in a school operating under these conditions and variables, can implement active learning successfully.

The school serves a disadvantaged community in an underprivileged rural area called Al-Barageel. It has 700 students and 50 teachers and staff. The average class size is 30 students. My research focused on Grades 1, 2, and 3. since these are the grades where teachers implement active learning.

I used semi-structured interviews, observations, and field notes to investigate and understand teachers' perspectives on implementing active learning in their subject area and how it affected their collaboration. Six teachers and one supervisor participated in this study from Grades 1, 2 and 3. The researcher conducted semi-structured interviews

that were audio-recorded and transcribed by the researcher. I logged observations, anecdotal notes regarding classroom layout, resources, materials, and classroom interactions to provide contextual details.

Statement of Positionality

I was the Assistant Principal at Al-Dar School for three years (2014–2017). My uncle owns the school. However, he doesn't manage it; the school principal does. I have a good relationship with the school principal, administrators, and teachers. Based upon my experience working at the school, I know that many teachers in Grades 1, 2, and 3 implement active learning.

My position as an EdD student from an American institution may have impacted the power dynamics between myself and the teachers, and how they responded to my questions. However, I utilized my previous relationships with the teachers to make them more comfortable sharing their experiences more openly. In one of the interviews, the participant expressed her feelings, “I really appreciate how I can talk with you openly and express any concerns regarding my work at school, and this is not usually the case talking to others in a leadership position.”

I am aware my family ties with school management could have been a limitation in my research. Participants might have felt threatened and unwilling to share their genuine perceptions. However, the fact that I already had a trustworthy and good relationship with the teachers from previous years, likely reduced the effect of this limitation. I completed many classroom observations for those participants while working there. Therefore, they

were used to me being in the classroom with them. The students were also familiar with me. These conditions made the classroom observation real.

Before each interview I talked with the participants to put them at ease. I reassured them their names would remain confidential and I would not share my observations with the management. I informed them the study focused on the teachers' perceptions and identified how they implemented active learning rather than assessed their implementation.

CHAPTER TWO: LITERATURE REVIEW

The Education System in Egypt

According to a report published by World Education News, overpopulation is one of many factors challenging the education system in Egypt (2019). Overpopulation has led to a high teacher-student ratio influencing the quality of instruction within the classroom. Consider the following statistics to demonstrate the trend of increased student enrollment, "the total number of children enrolled in elementary school jumped from 9.5 million in 2005 to 12.2 million in 2017, and from 6.7 million in 2009 to 8.9 million in 2015, at the secondary level, resulting in greater funding requirements, capacity shortages, and overcrowded classrooms" (World Education News, 2019, p. 10). Moreover, due to the modest quality offered by the system, many school graduates "lack the necessary skills for employment for a modern economy" leading to a significant mismatch between the skills of the graduates and the skills and competencies needed by the workforce (Omran & Bilran, 2020, p. 13). Active learning methods help students utilize higher-order thinking skills, such as analysis, synthesis, and evaluation which nurtures the necessary skills in today's workplace (Roehl,2013). Therefore, implementing active learning and changing in-class instruction, can significantly transform how students learn and make sense of the world around them.

Teacher Education in Egypt

Policymakers responded to the deterioration in Egypt's educational system by developing several policies to improve student outcomes. In 2003, the government issued the National Standards for Education in Egypt (NSEE), aiming to set comprehensive quality educational standards in Egypt, and raise awareness about quality learning (Gholam & Mansour, 2015). The NSEE mainly focused on students' knowledge of science, technology, engineering, and mathematics (STEM) and offered teachers professional development programs to support their pedagogy and practices (Gholam et al., 2015).

According to Mansour's study (2010), NSEE stretched teachers' capabilities and put them under intense pressure without offering them the necessary support to implement these reforms. Moreover, NSEE did not consider teachers' beliefs and practices, which created discord between the policies and their implementation.

In 2007, the Egyptian Ministry of Education (MOE) drafted its first national strategic plan for education titled "The National Education Strategic Plan 2007–2011" (Gholam et al., 2015). According to the Organization for Economic Cooperation and Development's report (2014), this plan succeeded in developing incentive and licensing structures for teachers through the Teachers' Cadre (TC) and establishing the Professional Academy (PA) for teacher professional development.

Unfortunately, the report also found that the establishment of the TC and the PA did not provide teachers with the necessary professional development. Moreover, the factors that limited the successful implementation of the National Education Strategic

Plan were the strong opposition from the teachers' syndicate, general resource, and infrastructure limitation, difficult teaching conditions, and political instability.

With the beginning of the “Arab Spring” in Egypt in 2011, the country faced significant political turmoil that has significantly disrupted its educational policies. As a result, between 2011 and 2014, the Egyptian MOE didn't have a long-term strategic plan and struggled with repetitive changes to its leaders. As a result, during that period, there were several short-term teacher education programs that were relatively limited in size and focus, operating in isolation from one another and limited in impact (Ewiss & Abdelgawad & Elgendy, 2019)

This changed in 2014 when the government created the National Strategic Plan for Education (NSPE) 2014–2030. This plan aimed to promote quality education, decentralize the education system, and create a culture of participation. From a teacher education perspective, the policies mainly focused on structural changes to the profession, with less focus on the teaching quality. The plan was overly concerned with solving the "problem of the shortage of teachers number" and providing them with clear licensing and salary structures (Ewiss et al., 2019). There was far less focus on how teachers can develop their teaching practice, and how the new licensing structure impacts teachers' pedagogical quality.

Type of Schools in Egypt

There are three different types of schools in Egypt. There are public schools (Arabic and experimental), private schools (national and language schools), and international schools. There is an enormous discrepancy in the fees of private schools in Egypt. They

range from "less than 1,000 Egyptian pounds (\$112) in a year for the national schools and up to \$24,000 a year" for private international schools (WENR, 2019, p. 35).

Since private schools provide education for low fees, people prefer sending their kids to those low-fee national private schools to sending their children to public schools with a high student-teacher ratio and overpopulated classrooms. See Table 1 for a description of the different types of schools in Egypt.

Table 1. School Types in Egypt.

National schools	Schools with a similar curriculum to that of the Arabic public schools. These schools have tuitions and exams for students to be accepted into the school. They have fewer students in-class than in public schools, offer better facilities, and have better infrastructure and resources. They offer their services to lower socioeconomic classes with low tuition (OECD, 2015). This is the type of school I did my research on.
Language schools	Teach most of the curriculum mandated by the MOE in English and add French or German as a second foreign language. These schools are considered better than the national schools as they offer better facilities and offer instruction in English. Language schools' fees are much higher than national schools (OECD, 2015).
Religious schools	"Religious schools include Al-Azhar schools (administered by the Islamic al-Azhar University and open only to Muslim students), Catholic schools, and schools of other denominations" (OECD, 2015).
International schools	Private schools that follow another country's curriculum (e.g., the American, British, French, or German systems). These schools offer the American high school diploma, the British International General Certificate of Secondary Education (IGCSE), the French baccalaureate, the German Abitur, or the International Baccalaureate. Their qualifications must receive official government certification from the Ministry of Education for the students to be eligible to enroll in Egyptian universities. These schools are perceived as offering even better facilities and more extracurricular activities than traditional private schools with higher fees. "While tuition at the ordinary Egyptian private schools may be less than 1,000 Egyptian pounds (\$112) a month, the most expensive

	international school in Egypt charges exorbitant fees of \$24,000 in the student's final year" (Mohamed et al., 2019).
Public schools	Students do not pay tuition in public schools. Schools follow the national government curriculum where all subjects are taught in Arabic, while English is offered as a second language. Public experimental language schools teach the government curriculum in English and offer an advanced English language curriculum (OECD, 2015).

Project-Based Learning (PBL)

Project-Based Learning Definition

There are many pedagogies that incorporate active learning. One example of these pedagogies is Project Based Learning. Even though researchers agree that Project-based learning (PBL) is a student-centered approach, the review of the literature available lacks a consensus on a single definition for PBL. Bell (2010) defined PBL as an approach to learning where students drive their learning by asking questions and working collaboratively to research and create projects that reflect their knowledge.

There is a consensus that PBL was first introduced at the end of the 1960s at McMaster Medical School through a new curriculum with a holistic vision of critically engaging learners through their involvement in collaborative projects. This curriculum taught students to choose their learning goals and integrate information from different disciplines related to the same medical problem. McMaster's curriculum was a success, which led other medical schools to design and implement similar curricula (De Graaff, 2007).

Research has shown that PBL leads to increased content knowledge, reaches students at all levels of academic achievement, and develops a wide range of skills

(Trimble, 2017). For this study, PBL is defined as a teaching/learning approach where students construct knowledge through active learning, a learning process based on engaging students.

Addressing Active Learning Through PBL

Academic Performance and Skills

Krajcik (2006) has shown that PBL can increase student motivation, academic achievement, cooperation between students, students' communication skills, and creativity. This is supported by Bell (2010), who stated that PBL allowed students to learn 21st-century skills such as cooperation and communication, highlighting how it empowers students to become more independent and own their learning process.

Building on the encouraging results shown in Bell's (2010) study, Holmes and Hwang (2016) conducted a longitudinal mixed-method study to investigate the effect of project-based learning (PBL) on secondary-mathematics students' academic skills development and how it impacts their motivation to learn. For the first-year, 532 secondary-mathematics students took part in the study, with 88 students implementing PBL and 444 as the control group. As for the second year, 78 students implemented PBL, and 381 were a part of the control group. Results showed that at-risk and minority students benefited greatly from PBL in learning mathematics. The academic performance gap was present, but its width diminished significantly. Compared to the control group, PBL students were more intrinsically motivated, showed substantially higher critical thinking skills, and appreciated peer learning. The PBL and control groups shared similar demographics and geographical proximity.

Research also showed that PBL can influence students' learning in both academic and non-academic areas (Trimble, 2017). Regarding PBL's impact on academic achievement, Karaçalli and Korur's (2014) research with fourth-grade students found statistically significant effects of the project-based learning method on students' academic achievement and retention of knowledge in the classrooms where PBL was implemented. These results show the importance of PBL in supporting the construction of knowledge at the elementary school level.

In a more recent study, Mahasneh and Alwan (2018) reported similar findings after examining 79 students to investigate the effects of project-based learning on student-teacher self-efficacy and achievement. The results showed statistically significant differences in how PBL benefited students' self-efficacy and achievement.

Fosters Inclusion

PBL focuses on scaffolding students' active learning rather than viewing them as passive receivers of knowledge. Moreover, it offers students an opportunity to engage in-class through various activities, discussions, debates, and other collaborative learning experiences by taking control and ownership of their learning under the teacher's guidance (Bell, 2010). PBL may also facilitate a more culturally responsive pedagogy where the diversity of students' cultural knowledge is perceived as integral to the learning process.

Accordingly, by striving to include minoritized and vulnerable students' voices, active learning may support a more equitable learning environment. In their study,

Holmes and Hwang (2016) showed that “PBL is beneficial for low socioeconomic status (SES) students because the cooperative learning environment tends to provide cognitive and social support” (p.25). PBL promotes inclusion, where students from different backgrounds get to work together and learn from each other. Moreover, students learn to be in various positions where sometimes they lead; other times, they follow their team members. Everyone gets to take a turn hoping to maximize everyone’s learning while wanting everyone to succeed, aiding the collective advancement of students in the process.

Fosters Collaboration

It is important to discuss students’ collaboration when talking about students active learning, as it is one of the important characteristics of active learning. In most school systems, most students tend to work individually rather than collaboratively (Thomas & Tewell & Willson, 2017). Therefore, collaboration is a skill that teachers need to nurture among their students. Collaboration can teach students to respect, listen, and value each other’s opinions (Krajcik, 2006). Students can learn to collaborate by working together on projects or being asked to find similarities and differences when reflecting on their work.

Therefore, collaboration does not always mean that students are working on the same project, but it could be that they are comparing and contrasting their different findings. By working together, students learn to work cooperatively and independently. They also learn to share tasks and divide the work that needs completion. Active learning

methods help students utilize higher-order thinking skills, such as analysis, synthesis, and evaluation (Bonwell & Eison, 1991).

According to Alfarargy's (2016) research, PBL increased collaboration between students through working on projects together. Learning to work collaboratively develops social skills such as active listening and supporting effective communication with others (Contreras and Juliana, and Castro, 2017). In this instance, listening to others would mean ensuring that everyone in a group or in-class has a voice and can contribute to the learning experience. When students listen, they start reflecting and seeing others' perspectives, which is an essential skill for students to succeed. When students listen and communicate, they learn to ask the right questions, and build on what others have said. This holistic approach to instruction which includes social skills, critical thinking, and collaboration, engages students with varied learning styles and appeals to the typical millennial learner who thrives in an environment of variety and change (Prensky, 2010).

PBL Implementation and Challenges

Besides the research findings on the positive outcomes of PBL, there is research that covers the challenges related to the implementation of Project-based learning. This body of research reveals themes such as teachers' lack of knowledge and preparation, school culture, and students' assessment.

Teachers play a significant role in facilitating students' active learning. "The successful implementation of active learning in the classroom lies in the teacher's ability to scaffold students' learning effectively, motivate, support, and guide them along the

way” (Kokotsaki & Menzies & Wiggins, 2016, p.42). It’s not just putting students into groups to work together but choosing which students work together and ensuring that students know the importance of their individual contributions (Pinter & Sanja, 2018). Through working in groups, students learn to work with others from different backgrounds supporting equity in the classroom by allowing students to share and understand the experiences of others.

According to Ertmer & Glazewski (2015), students do not naturally collaborate. Therefore, teachers need to create structures that moderate cooperative learning. To do so, they need to make various decisions starting from group size to the nature of the task that needs to be completed. Therefore, teachers need to help students develop the skill of collaboration and respect for other students’ opinions, which takes time and effort, and is an ongoing process (Krajcik, 2006).

Another challenge teachers faced was changing the classroom culture from students expecting to be passive learners, and being served the information, to active learners who are engaged in the learning process. Studies have shown that teachers are concerned about the effort and extra time required for planning, implementing, and designing proper assessments for PBL and the potential negative impact of PBL on their students’ scores on high stakes standardized tests. Therefore, teachers’ willingness to adopt PBL in their classrooms depends on:

- (1) How likely they perceive that they will be successful in implementing PBL.
- (2) How highly they value PBL, in terms of both their professional growth and their student’s learning.

(3) How much time and effort they think the adoption of PBL will cost them; insufficient professional preparation is one of the most frequently cited barriers for pedagogical change.” (Lee & Blanchard, 2015, p.15)

The support the teachers get from one another and from the school administration plays an essential role in the success of PBL. MacMath (2017) argues that PBL implementation is most effective when the school administration supports teachers, a shared vision is utilized by teachers, and a school culture where the teaching and learning are student-centered. A school culture where teachers support each other is essential for PBL success.

A study done by Bland (2020) showed that collaboration among teachers is essential when implementing new strategies such as students active learning, and training before and during implementation is crucial. This shows how vital administration support, and willingness to spend time and effort, is essential for active learning to succeed. When teachers feel supported by their school regarding time flexibility, trust, and autonomy, they become more motivated to implement active learning (Kokotsaki et al., 2016). Lack of school administration flexibility affects the implementation of students active learning. Teachers and school administration need to be flexible and willing to change for active learning to be effective (Roehl, 2013). Research has shown that the school administration’s attitude and behavior in interacting with teachers, influences teachers’ approach towards dealing with their students (Price, 2015; Huang & Francis & Dewey, 2018).

For active learning to be successful, evidence of progress needs to be regularly

monitored and recorded (Kokotsaki et al., 2016). Educators assess and support students in an active learning setting throughout the learning process, rather than at the end of their learning. Teachers need to be aware of the right time to give an assessment to generate teachable moments where students benefit the most (Kokotsaki et al., 2016). This will ensure that students are on the right track and motivate teachers to move forward.

Teachers also create a safe environment for students to share their thoughts. During active learning, students learn to ask questions and reflect on their work, and others' work. Students need to feel safe and comfortable sharing ideas and challenging themselves and their colleagues within the class (LaForce et al., 2017). "Self-assessment skills help students learn to regulate their learning and acquire ownership of the learning process" (Kokotsaki et al., 2016, p.20). Regarding reflection on other student's work, teachers must set clear guidelines regarding how students reflect on others' ideas or opinions and give feedback. The feedback and reflections should show acceptance of other ideas and respect for different student opinions.

Only through frequent assessment can we, as educators, know if the students have reached the desired learning outcomes (William, 2011). With more focus on standardized testing, it is becoming more difficult for teachers to focus on the students' learning and instead focus on the students memorizing what will be included in the tests. It makes it more difficult for the teacher to be creative and allocate time for collaborative work as teachers feel the need to finish the curriculum that the students will be evaluated upon.

Some have argued that students active learning allows teachers to be more aware of where their students stand academically and, as a result, are more responsive to their

student's learning needs. As Pinter & Sanja (2018) have shown, students benefit more from the continuous assessment of their academic levels through formative assessment. Student engagement and active learning allows the teacher to have a broader insight into what students have learned and understood. On the other hand, the traditional lecturing format might result in the teacher waiting until the end of the semester or after the exams to know their students' academic level.

A mixed-method study done by MacMath & Sivia, and Britton (2017) on teacher perception of their experiences with PBL at a secondary school in Western Canada showed the challenges teachers face by quoting one teacher saying, "certain things you don't have the luxury to spend as much time on when you just sort of need to move on" (MacMath et al., 2017, p.45). Participants in this study discussed the need for continuous formative assessment of students' work and seeing PBL through the process students go through, not just the end product.

As noted by Macdonald (2004, p.9), "the design of assessment is critical in determining the direction of student effort". If assessment only tests or evaluates what the student has memorized, the student will only focus on memorization rather than understanding. When assessments focus on critical thinking rather than memorization, students are more likely to focus on their learning and apply what they have learned to real life. One of the most important criteria for assessment to be successful is for teachers to make sure that the feedback is constructive, where students get feedback that gives them a chance to learn from their mistakes and work on them. Another essential characteristic of assessment to be effective is for it to be timely. Students should

promptly receive feedback on their work so that their work is still fresh in their minds and learn from their mistakes (Keppell, 2016).

Active Learning in Egypt

Even though pedagogies centering on students and promoting active learning have been championed by Islamic philosophers in the eighth and ninth centuries and several modern education leaders, the Egyptian education system is still predominantly based on student memorization (Günther, 2006; Megahed et al., 2008).

In response to what President Mubarak, Egypt's Former President, labeled, "the crisis in Education," the beginning of the 21st century marked the initiation of significant collaborations between the Egyptian government, multilateral organizations, and donor agencies to improve the quality of the education system (Megahed et al., 2008).

Many of these efforts, such as the USAID-funded Education Reform Program (ERP), explicitly focused on promoting active learning pedagogies (Badran et al., 2020). Despite some of these strategies showing some promise, most studies evaluating teachers' implementation of active learning pedagogies showed modest results. According to research (Ginsburg et al. (2008); Awad (2020); and Badran et al. (2020)), most teachers were unable to implement active learning pedagogies due to:

- 1) Infrastructural challenges, such as the lack of resources at schools and the large teacher-student ratios.
- 2) Resistance to change by teachers and students due to familiarity with other pedagogical approaches that mostly favor rote learning.
- 3) Lack of sufficient guidance on the implementation of these approaches.

According to Langsten and Hassan (2018) and Krafft (2018), Egypt needs to reform its examination and assessment structures to recognize teachers' student-centered pedagogical approaches, and reward students who actively learn rather than memorize the text.

As for research that focuses on PBL in Egypt, a qualitative case study done by Elfarargy (2016) focused on investigating PBL and understanding students' perception of PBL among boys only STEM High school in Egypt. Elfarargy used open-ended questions to collect the data from twenty-four students in his research. The students came from different backgrounds, some from Arabic schools, others from language schools. Some of the questions were asked to be answered individually by students. In contrast, other questions were answered in a focus group where students of the same group came together to answer the questions having the opportunity to add, agree or disagree with any of the other students' responses. The study showed that students believe that applying PBL enhanced their learning and increased collaboration during group work. However, the findings also showed that students and teachers weren't offered sufficient preparation to help them implement PBL, which influenced the actual implementation of PBL as a pedagogical approach.

Definition of terms

Active learning: A teaching model that highlights minimal teacher lecturing or direct transmission of factual knowledge, multiple small group activities that engage students in discovery learning, and frequent student questions and discussions (Ginsburg & Megahed, 2008).

Project-Based Learning (PBL): A teaching method where students gain skills and knowledge through working for extended periods of time, both individually and in small groups, to investigate and respond to engaging questions and problems.

Professional Development (PD): The training sessions and the support offered for the teachers to improve their teaching effectiveness.

CHAPTER THREE: Methodology

The purpose of this study is to examine the teachers' perception of implementing active learning as a pedagogical approach, and the challenges and opportunities they face implementing it under strict guidelines from the Ministry of Education curriculum in Al-Dar school, a private low-income school in Giza, Egypt. The results of this study will provide implications and insights about teachers' perceptions and experiences of implementing active learning as a first step to develop more complex higher level of active learning pedagogies such as PBL. These insights will inform recommendations for policymakers, teachers, and school leaders who promote and support instruction in the education system. These data driven insights into teachers' perception in implementing active learning will contribute to the field of education because they help leaders understand the optimal conditions where active learning can be successfully implemented as a curriculum intervention in limited resource schools, specifically in a low-income school.

A qualitative case study approach was used for this study. Case studies are used to explore meaning and insight into a situation, in this case it is teachers' perceptions of implementation of active learning within their classrooms. A case study was appropriate to explore teachers' unique experiences to obtain a deep understanding of how teachers view the process of implementing active learning. Case studies are used to answer how and why questions in a detailed manner (Creswell, 2007). Implementing a case study methodology ensured a detailed description of teachers' perceptions. The study will help identify the gaps, and propose policy improvements, and practices to incorporate active

learning implementation effectively. The primary tool to gain this deeper understanding is through the participants' perceptions and lived experiences. The data collection for the study consisted of two parts: interviews and classroom observations. The researcher conducted one-on-one semi-structured interviews, and classroom observations to better understand teachers' perspectives on implementing active learning and promoting student engagement in their subject area. The researcher audio-recorded and transcribed each semi-structured interview. Observations and anecdotal notes regarding classroom layout, resources, materials, and classroom interactions were logged to provide contextual details.

Research Site

Al-Dar School is a private national school in Giza, Egypt. It is in a rural area and provides service to lower socioeconomic families. It is characterized by low-income salaries, a high number of students in the classroom with an average of 32 students per class, and insufficient resources. The school's vision is to give socioeconomically underprivileged students a good quality education in an underserved area in Giza (Mona, principal, June 2018). Therefore, private schools that are similar to this school and public schools that face similar challenges and serve the same category of students will benefit from this research.

The school is a K–9 elementary school with approximately 700 students and 50 staff members, including teachers, matrons, security, and administration staff. Students' experiences with in-class instruction can be divided into two different grade groups: the first group includes K–3 students, and the second includes grades 4–9 (Mona, Principal,

2018). In-class instruction from K–3 was engaging, and students were usually more inclined to participate actively in discussions and activities. Teachers made sure they developed and implemented activities that would engage students. It is more common to find students working in groups in these grades, learning skills such as collaboration and communication.

On the other hand, students in Al-Dar school in Grades 4–9 engaged in a drastically different learning experience. The teachers followed a pedagogical approach that relied on frontal instruction, where they controlled all the learning and focused on finishing the curriculum rather than the students' learning. Students were mostly forced to work individually due to the lack of opportunities and incentives for collaborative engagement. As for student evaluation, the exams for these grades were disseminated by the district office, and tests mainly focused on rote learning and memorizing facts rather than understanding them (OECD, 2015).

Participants

I chose a purposeful sample of six homeroom teachers in Grades 1, 2, and 3 who implemented active learning in Al-Dar school and their supervisor, a total of seven participants. Although there are eighteen teachers from Grades 1, 2, and 3 my sample inclusion criteria involved choosing teachers who spend the most time with the students in-class and supposedly have more time and space to engage students and implement active learning.

I had a recruitment email sent to all classroom teachers for Grades 1, 2 and 3. I

ensured I followed steps to protect human subjects and comply with best research practices. In the email, I explained the study, attached a consent form, and information about voluntarily participating in the study. I also informed recipients, their identities would remain confidential, and pseudonyms would be used to protect their identity. Moreover, the email stated they had the right to withdraw from the study at any point if they didn't feel comfortable being in the study.

I conducted one-on-one semi-structured interviews (Appendix A) with the teachers and their supervisors to learn more about their perception of active learning and any challenges they may face implementing it. Second, I conducted six classroom observations to observe how the teachers foster students' engagement. These observations guided the interview questions, and I was able to use specific incidents to enrich the interview questions. This study was done in four months during the second term of the school year. This was to ensure that the teachers were comfortable in their classrooms and knew their students.

Classroom Observations

The researcher conducted six classroom observations in Grades 1, 2, and 3. The observations took place before the interviews. An observation protocol (Appendix B) was used in all observations to ensure that the researcher followed a structured approach for engaging with the same constructs across all observations. The observation protocol included five points:

- (1) How did the teacher engage the students?

- (2) How long did the teacher talk?
- (3) Do students communicate together?
- (4) Did the students get a chance to ask questions?
- (5) Things I have noticed.

The researcher sat quietly at the end of the classroom taking notes on the laptop. To protect students' identities no names or details about students were collected. Even though students were not included in this study a consent form was sent to the parents to inform them of the study. The consent form included what the study will be about and how the research will protect the identity of their children. To protect the children's privacy the researcher limited the amount of information record about the children during my observations. All information was collected anonymously, which means that names or any personally identifiable information were not recorded in the notes. Moreover, all the notes are kept in a secure database hosted by Boston University and only the researcher has access to it.

Interviews

The researcher conducted seven interviews with six teachers and their Grade-level supervisor. The interviews offered the participants an opportunity to further demonstrate their understanding of active learning and how they implemented it. All interviews were one-on-one in an office in the school. All participants were asked the same nine questions with little difference based on the participants' answers (Appendix A). Sometimes follow-up questions were asked, and the question sequence was different. The interviews lasted

about 30 minutes per participant and were conducted over two weeks based on the teacher's availability. Before each interview, the researcher followed all protocols to protect human subjects, and administer informed consents to the participants. I also reminded them their names would remain confidential, and that no details would be shared about their identity in the study. They were also reminded that at any time during the study, they had the right to withdraw from the study.

The researcher recorded individual interviews on the researcher's mobile phone, and pseudonyms were used to save the recordings, with participants' permission. During the interview, the researcher took notes on the laptop. The notes included any gestures, body language, or facial expressions that the participants might have displayed during the interview. All notes and recordings were saved in the Boston University (BU) Dropbox.

Interviews were manually transcribed and then translated from Arabic to English for the coding process. The data was coded manually by the researcher; each participants data was analyzed and coded individually creating themes for each participant separately. Then, the themes were combined to see which themes are repeated the most.

Transferability

The findings of this study may be applied to K–12 private and public schools, characterized by low-income families, Low teacher salaries, a high student to teacher ratio, and have limited facilities within the school. The study results provide insight for school leaders and policymakers who must continue to explore pedagogical and instructional approaches that can advance student learning and achievement.

Understanding teachers' perceptions is critical as they are the ones who implement change. This study is situated as a part of the research that aims to explore pedagogical approaches that can advance equitable learning. If teachers feel unsupported, or their needs are unmet, it would be very difficult to implement change, whether it is an instructional change, or any other change that relies mainly on the teachers.

Limitations

There are two main limitations to this study; the first is the small sample size of participants, which was seven participants. The second limitation is my positionality. I was an assistant principal at the school and have family ties to the owner of the school, which might cause some participants to be reluctant to share their negative opinion on different aspects of the school. However, I believe that I have a good relationship with the teachers, and they trust me based on our relationship when I was assistant principal and continued after I left the school. I used to do classroom observations when I was an assistant principal. I always made sure the teachers knew that I was not there to assess them but rather to support them. This helped build the trusting relationship we have.

CHAPTER FOUR: Findings

This study aimed to explore teachers' perceptions and experiences regarding student engagement and active learning implementation in Grades 1, 2 and 3 in a low-income, Arabic private school in Giza, Egypt. The data collected led to a rich narrative of how active learning can be successful in that context, as well as the challenges and opportunities the teachers face when implementing active learning within their classrooms.

This qualitative research included six teachers from Grades 1, 2, and 3 and one Grade-level supervisor for a total of seven participants. The supervisor's role to conduct classroom observations, formally and informally assess teachers, and to mentor them providing the support needed to help them become more effective teachers. To select my sample, I sent an email to teachers in Grades 1, 2, and 3, with the goal of offering teachers the agency to decide if they want to participate in the study (Appendix E).

Subsequently, two teachers from each of the three grades volunteered to participate in the study. Four out of the seven participants have been working in the school for more than ten years, and three for more than seven years. I conducted one-on-one semi-structured interviews with the participants and one classroom observation for each classroom teacher, for a total of six classroom observations. Conducting interviews offered me the opportunity to develop a deeper understanding about how the teachers viewed and experienced active learning with their students. The classroom observations provided a better view about the teachers' instructional practices within their classrooms, providing an opportunity to triangulate and compare what they expressed in the

interviews with their actual classroom practice.

Classroom Observations

During my classroom observations, I sat at the back of the classroom and relied on the observation protocol I developed for the classroom observations (Appendix B). I used this protocol to ensure that I followed a structured approach for engaging with the same constructs across all observations. Notes were taken on my laptop and saved in the BU drop box in an encrypted folder to ensure I protected my participants' data. Before the data analysis, I read all the notes and clustered my observations based on the similarities and differences between teachers' practices and the overarching themes prevalent in all classrooms. These observations lasted approximately 90 minutes for each classroom, totaling about nine hours.

Interviews

The interviews took place in an office in the school that was accessible to teachers. Each teacher was asked to choose a time slot based on their respective schedules. I took notes on my laptop during the interview. Moreover, I audio recorded the interviews with the participants' consent. The notes included any gestures, body language, or facial expressions that the participants might have displayed during the interview. These elements were used in the data analysis to show excitement, disappointment, or being neutral regarding different matters that were in the interview questions. The researcher then listened to these recordings and took side notes to help

with the coding process. This process helped to identify the thematic similarities and differences between the teachers' practices.

The purpose of this qualitative study was to understand teachers' perceptions of active learning, the support they receive, and the difficulties they face in implementing it. Thus, this study presents an important case for further investigation of the active learning phenomena not only in private schools in Egypt but also in the public schools. The study utilized Dewey's (1916) framework, focusing on learning by doing.

Five research questions guided this study:

- (1) How do teachers perceive the implementation of active learning as a pedagogical approach?
- (2) What challenges and opportunities do they face when implementing active learning?
- (3) How does students active learning impact collaboration among teachers?
- (4) Do teachers feel supported to implement active learning? Why or why not?
- (5) What supports do teachers and administrators believe are needed for active learning to succeed?

Five Major Themes

There are five major themes that surfaced from the data collected from the seven participants:

- a) Effective leadership that enables powerful teaching.
- b) Active learning as an effective pedagogy.
- c) The value of play for advancing learning.

- d) Professional development is essential for teachers' instructional effectiveness.
- e) The role of teachers' pedagogical expertise in influencing their ability to implement active learning.

Theme 1: Effective leadership that enables powerful teaching

The first theme prevalent in the data analysis was that effective supportive leadership is one of the key factors for teachers to smoothly implement active learning. This theme is connected to my second research question, which examines the opportunities and challenges teachers face in implementing active learning. More specifically, teachers' responses illustrated how school leadership has an integral role in bolstering teachers' capacity to implement active learning, with this theme manifesting for six participants. Six participants emphasized that school leadership support is one of the significant attributes of their ability to implement active learning. School leadership includes the Grade-level supervisor for Grades 1, 2, and 3; the school principal; and the school finance department. The most significant commonalities among the participants regarding leadership support were: 1) An adaptive leader, and 2) leadership that responds to the needs of the teachers regarding time, and schedule flexibility.

During one of the interviews, a participant shared her experience with the school principal that showed how she valued the principal's flexibility and support, as illustrated in the quote below. The participant talked about being overwhelmed with having to teach a large classroom size of thirty students while being responsible for teaching Arabic, Math, Islamic Religion as well as Explore, a new subject added to the curriculum this

year. This stretched her cognitive, social, and emotional bandwidth. She shared the following feedback on her experience:

“I have many students in my class with different academic needs and many students with behavioral issues as well as uninvolved parents. I went to the school principal to discuss how I felt stressed having all these students and all the different subjects to teach and very little time to prepare. I was hoping that the school principal would open a new classroom and divide my classroom into two. However, she refused but solved the issue by rearranging the schedule, so I have a gap between my classes and more planning time. She also assigned the religion and explore subjects to another teacher with a lighter schedule.”

This experience that the participant revealed showed that she felt comfortable going to the principal and sharing with her how she felt, requesting a change. This shows the amicable and open relationship that the teachers have with the school’s leadership which seemed to offer teachers the opportunity to openly express their feedback. The teacher also noted how the availability and flexibility of the principal made her feel comfortable to go and ask for help.

Another teacher noted:

“Class time is very limited, and we often need quick fixes from the school leadership. One day for some reason, the classroom projector was not working. I rely a lot on this projector because it saves a lot of my writing time on the board. Moreover, the students can see exactly which part we are working on in front of them, so I informed my supervisor. She called an IT person to come to school to

fix it on the same day; simple and quick responses make all the difference in my ability to implement active learning.”

Six teachers also highlighted how their Grade-level supervisor provided “excellent support,” sharing how their ability to implement active learning smoothly was due to leadership’s support and guidance. One teacher elaborated that she felt that the supervisor is like “her assistant.” She explained that she never felt the supervisor was there to evaluate her. She believed she was there to aide her. It was clear from the interviews and the classroom observations that the teachers perceived their supervisor’s presence positively. As one of them noted, she “is always available” for all of us, giving feedback, providing resources, and offering professional mentorship.”

The supervisor’s support was evident in the classroom observations. During one of the classroom observations, after the first five minutes of class, the Grade-level supervisor came into the class for an instructional observation. Observing the teacher’s response, she seemed at ease and continued her lesson.

The supervisor seemed to know all the students’ names and was calling on them to participate in-class. She was also helping the teacher by holding some of the tools that she would use in the lesson, which was about cooking rice such as in the drawing with the steps and the ingredients, the butter, water, salt, and rice. The supervisor then stood next the smart board to press play for the audio to read the steps while the teacher stood in front of the class, making sure the students were on track.

The supervisor paused the audio and each student read one of the steps. The

teacher then asked the supervisor to take a video of the students while they did roleplay as chefs, for them to view these videos at a later date and see their performances using the new vocabulary words they learned in the lesson. Based upon my impressions, in this instance, it seemed like the supervisor was acting as the teacher's assistant and they had a very cooperative and cordial relationship. The teacher seemed comfortable enough to ask the supervisor for help throughout the lesson. For example, the supervisor stood next to a boy who interrupted the teacher three times in ten minutes, asked to go the bathroom, then to sharpen his pencil, and last to drink water. The supervisor seemed to know the boy and stood next to him to make sure he was following up. During the interview with the supervisor, I asked her about that incident, and she elaborated:

“I have a list of all the students who are struggling academically and those who have behavioral issues. When I go into a class, I make sure I give attention to those students. I do it for the students and for the teacher. Sometimes I feel that a teacher is overwhelmed by a student behavior, and I like to provide that support if I'm in-class.”

It is important to note that this supervisor was previously a classroom teacher teaching Grade 2. She worked as a teacher with this team for six years, then she became their supervisor two years ago, she did not teach any classes during the time this research took place. The supervisor's previous experience as a classroom teacher for the same Grade-level could have been a reason for this relationship between the supervisor and the participants.

Not all participants saw the school leadership as supportive for their active learning efforts. On the contrary, one of the participants saw the opposite, having a very different experience. When asked about the school leadership support, she expressed the lack of leadership support by stating:

“I feel stressed. I need to act as the principal when the principal is in managerial meetings. I sometimes get called out of class to meet with parents. Regarding the materials and resources that are available we can only order at the beginning of the year, and it’s very difficult for the finance department to approve extra materials mid-year.”

The participant further elaborated:

“I have many hyperactive students in my classroom. If I compare my class with the other classes, mine has the greatest number of students who need educational support. I have worked so hard to let them reach where they are now. The distribution of students on the classrooms wasn’t fair. The school leadership put most of the struggling students in my class. I still implement active learning because this is how I prefer to teach, but I need more time to find new activities or develop my approach. I mainly follow the teacher’s guide and the plan we get from the advisors.”

It was noticeable that this one participant dealt with many different struggles in comparison to the other six participants. This participant was asked to do more than her job description without being given any compensation as the teachers’ contract states that

as long as the teachers are asked to do a job during the school hours, they do not need to get a compensation. She was doing work that the assistant principal should be doing, without having the title of a school principal. These factors could have been contributing to why she had a different view from other participants. She didn't feel appreciated.

During the interview she noted,

“I might need to leave during the interview as I have a lot on my plate. Today is the last day before Christmas break and I promised the kids that I will do them face painting, so if we take a long time, I will have to leave during their break time and come back.” She added, “There should be a matron or assistant who does these things, but this is not the case.”

Theme 2: Active learning as an effective pedagogy

The second theme that was prevalent throughout my data was that project-based learning works. All seven participants agreed that student engagement and active learning is helpful for better knowledge construction and that the students' active participation in-class helps them retain and apply the content knowledge they acquired. Theme two “Active learning as an effective pedagogy” is connected to my first research question, which investigates how teachers perceive active learning implementation. The interview questions and participants' discussion showed that they believe active learning is an effective pedagogical approach that helps students construct and retain information. One of the participants explained:

“The only way I can deliver the lesson is by engaging students, I have many hyper students, and their engagement is crucial for the learning to take place or else they will be fidgeting and moving all around the classroom.”

Four out of the seven participants have been working in the school for more than ten years and three for more than seven years. They all discussed the evolution in how they teach compared to how they taught seven years ago. According to the teachers, in the past, classes involved them talking through the 45- or 90-minute class time and explaining the lesson with minimal student interaction. One of them labeled it as a “rote learning approach.” Teachers mentioned how their current pedagogical approach focused on students’ active learning and how this approach helps students stay more focused because they are engaged. Teachers’ responses demonstrated how they used to only depend on transferring the knowledge to the students focusing on the teaching, rather than the learning.

One participant elaborated:

“I enjoy teaching more because I can tell that the students are learning during the class time. I no longer have to wait until the exam to know they understand the lesson.” Another added “It’s learning by doing.”

Other participants mentioned examples of active learning such as group work, role play, student-teacher role, utilizing educational songs and interactive charts (See Image 1 below).



Image 1. Interactive charts that teachers use to engage students by involving them in the learning process.

Theme 3: The value of play for advancing learning

All participants in the study conveyed that when play is incorporated in their teaching, it makes learning more fun and engaging for their students. The play and active engagement theme was directly connected to the first research question, addressing how teachers perceive the implementation of active learning as a pedagogical approach. Here the teachers conveyed how they understood active learning and what specific activities are needed for the implementation of active learning. Participants viewed active learning as an academic approach that engaged students through collaborative group work, encouraged individual students in-class contributions, and promoted play-based learning. The most recurring phrase that the participants used in their interviews to describe the value of active learning referred to its promotion of ‘learning through play.’ Participants consistently acknowledged the impact of play on their ability to facilitate active learning. One participant made sure to always dedicate some time during her session for “play time” that is student-initiated and nonacademic focused. She explained:

“I use this play time even if it’s just for five minutes to grab their attention and focus to get back on track.”

Participants talked about how play encourages students’ attentiveness and their interest in the content. They also talked about their perceptions about how play is essential to advancing student's learning. Another participant asserted that,

“Play helps me convey the information to the students, and only by play can I manage the classroom with more than thirty students with different needs.”

The participants explained that active learning might be promoted differently in the upper grades, due to the different academic requirements for older grades and the distinct interests of these older learners. That said, the participants shared their belief that with the younger Grades 1, 2, and 3, active learning is mainly practiced by incorporating play within the sessions. Participants who responded showed they divided play into two parts: academic related and nonacademic related.

Academic-related play occurs when teachers add play elements to instruction. A teacher played this academic game: she had new vocabulary words on a paper, and each paper in an envelope; one student was appointed to act as a mail man who delivered mail to the students. Each student then opened the envelope to find a word and, on the back, there was a question related to that new word. The options were: say the meaning of the word, say a synonym, or to put the word in a sentence.

Another example of academic related play was role play. This took place in a lesson about littering and throwing plastic into the sea. Three students were chosen in the

class: one acted as the father, the second as the son, and the third as the dolphin in the sea who was tangled by a plastic bag.

In one of the classroom observations, the teacher had a timer that made a beeping sound every 25 minutes to remind her it was play time. Subsequently, when it was play time, the teacher would ask the students to do the opposite of what she does. She did the following: when she sat down, she asked the students to stand. When she raised her right hand, the students raised their left hand. The teacher started with moving slowly, and as time passed, her movement started to be more rapid, keeping the students alert to the different movements. The second time the alarm beeped it was time for the “Move and Stop” activity. The teacher played music and chose five students to go around the class and then when she stopped the music, the students had to “freeze” by staying still until the music resumes. Any student "who moved after the music stopped went to sit back in his place.” Reflecting on how activities like “Move and Stop” captured learners’ interest, this teacher stated during our interview,

“Students look forward to learning because they know it means they will play. My students actually focus more, and I can grab their attention easily after this nonacademic related play time.”

Other participants described play by saying, *“Play is the time I give my students to move around freely, or play ‘I spy’ during class time.”*

Another participant added, *“it is having a competition between the girls and boys that is connected to what we are learning during that lesson or connecting it to a*

previous lesson”.

A third participant said, "It's when I ask them to do role play."

A fourth participant added, *"I ask them to do the opposite from what I'm doing, and it's usually a movement so that they gain their focus again and move their body as the lesson is sometimes 90 minutes, and that's a lot of time for a child to sit and focus."*

One participant explained what play is for her, *"Play is active learning; it is teacher-directed with an academic focus."*

As evident by the classroom observation, play was always part of the lesson plan.

In all six classroom observations, play was a part of the lesson, whether it was to facilitate learners' content knowledge mastery, or as a technique utilized to attract and sustain students' attention.

Below are examples of play activities that the teachers utilized in-class.

Table 2. Play Activities.

Participant 1	Boys against girls competition
Participant 2	Teacher-directed with an academic focus
Participant 3	Role play: student-teacher
Participant 4	Group work
Participant 5	Do the opposite movement
Participant 6	Move and stop around the classroom
Participant 7	It is sometimes teacher-directed other times student-initiated

Theme 4: Professional Development is Essential for Teachers' Instructional Effectiveness

During our interviews, participants reiterated the value of participating in professional development opportunities related to active learning, and the prominent role of the advisors in advancing their capacity for active learning implementation. This theme was connected to my second research question, which focused on exploring the challenges and opportunities that participants face when implementing active learning. The participants expressed how much they value the external advisors hired by the school. These advisors visited the school once a week to conduct classroom observations, offer teachers recommendations for enhancing their pedagogical content knowledge, and give weekly plans for the teachers to follow so all classrooms followed the same weekly plan. There is one advisor assigned for each Grade-level. The reason behind the school's interest in ensuring some homogeneity in the school's weekly lesson plans is to ensure that all students receive the same, high-quality learning experience.

These advisors also planned the main two professional development trainings that take place during the year, one during the summer and the other during the winter break. Before, the PD teachers were assigned specific lessons. Each teacher was asked to prepare a model lesson with all the tools and activities incorporated in that lesson, to be implemented in front of the other teachers. This is a way for teachers to share new ideas and ways to teach a specific lesson. It gives the new teachers a chance to see a variety of model lessons that they can incorporate.

Six participants discussed the importance of the two professional development training experiences. They also discussed, the guidance they received from the advisors, as one of the main factors advancing their ability to facilitate active learning with their students. Five participants shared their perceptions about the effectiveness of these visits and the two PDs that take place during the year, one teacher mentioned,

"I learned a lot from the PD, and now I sometimes lead the PD session because of my expertise in engaging the students and developing fun ways to engage the students." Another participant added "The training guides us a lot. I go into class knowing what to do. I don't feel lost. We share new ideas and ways to implement active learning."

On the other hand, another participant stated:

"When I was a new teacher, I learned a lot from the PD, but now I feel it is repetitive. It doesn't add to me. It is the same each year unless there is a curriculum change which is a rare case. As an experienced teacher, I sometimes lead the PD session, and I get to share my knowledge with other teachers. But it is boring for me; I don't learn anything new. The relationship I have with the advisors who plan the PD is what I cherish the most because they added a lot to me both professionally and personally during my early years of teaching."

The PD that took place in January 2023 included 11 learning objectives that the advisors shared with the researcher.

1. Support students who are struggling academically

2. Learn how to engage with students who have learning difficulties (for example, dealing with ADHD)
3. Learn how to manage students' behavioral issues
4. Develop their time management skills
5. Manage the relationship with parents and caregivers
6. Develop their pedagogical approach for teaching students who have different academic capabilities
7. Engaging students in the learning process
8. How to grab students' attention during the lesson
9. Tools for teachers to calm down and control anger if needed
10. Capacity to develop lesson plans that address curricular needs
11. How to go from one academic level to another during teaching

Theme 5: The role of teachers' pedagogical expertise in influencing their ability to implement active learning. Classroom Management and Teachers' Experiences and Strong Personality Significantly Affect Their Ability to Implement Active Learning

All seven participants shared their belief that integrating active learning into the curriculum was essential for advancing students' learning. They expressed their conviction that classroom management, teachers' self-confidence and self-efficacy, and strong personality (which tended to refer to a teacher's assertiveness, determination, and proactiveness) were the three main traits that a teacher needs to nurture and put forward an effective implementation of active learning that advances learners' knowledge. They all agreed that experience and teacher's personality were the main drivers of their

successful integration of student engagement and active learning. The participants mentioned that teachers' lack of classroom management skills (e.g., ability to model ideal behavior and involving students in establishing classroom guidelines) or self-confidence could be detrimental for teachers' ability to advance student engagement and active learning.

One participant explained:

“It is vital to have classroom management to be able to implement active learning, and only by being confident can you manage a classroom.” Another participant added, “a teacher needs to know the curriculum well to be confident to engage the students and be ready for any questions the students might ask. Because when you engage the students, they are more eager to learn and show interest in the learning process.”

It was apparent from the classroom observations that the teachers were confident in implementing active learning. They smoothly moved from one activity to another while guiding the students and sometimes lecturing, if needed. For example, the teacher would explain the new words or new concepts in the lesson then engage students in an activity and after moving to another activity. Student engagement was mainly through play or group work. Therefore, during the interview, the researcher asked them what led to that level of comfort in implementing active learning. They also added that the effort they make at the beginning of the year to introduce students to active participation, discuss what it entails from their end, and prepare them for its implementation helps

teachers with the execution in the long run.

One participant stated:

"I like to be the person who is fun and plays with them but I'm also the person who is strict and firm in other times. It's that balance that builds the relationship I have with my students. I love my students and I love seeing them grow and that's why I'm keen to have this relationship with them."

All seven participants agreed that the more the teacher prepares her students and spends time setting the guidelines for an active classroom environment, the easier it is to implement active learning at any time during the lesson. Four teachers explained that they feel comfortable altering their lesson plan whenever there is an opportunity to engage the students. One participant stated, "Whenever I get a chance to engage the students, I always choose that over me lecturing; it gives them both the knowledge and the skill to collaborate."

Classroom management

Classroom management was another topic all teachers talked about. They mentioned that it is essential for a teacher to have class management skills to implement active learning successfully because, as one noted, "There will be chaos in the classroom without it." Another participant mentioned, "I need to set the tone and make an effort to set rules for the students to follow for active learning to be successful. It's not just play without purpose each activity we do has an academic outcome or skill they attain."

Another participant elaborated:

“I have many students in my class who are struggling academically and who like to distract the class a lot, and that only by putting strict guidelines can I manage to implement active learning. For example, explaining group work and how it will be part of our classroom and that students need to participate and know their group and how to communicate together, take turns and listen all skills that are super important. I make sure I spent a lot of time at the beginning for the year to explain all this and it made teaching for me easier now. I learned that by experience that the more effort and time I put in early in the year pays off throughout the year. I also had to reassure the students that they will always take a turn. I also invest time in choosing who the group of students working together will be. Making sure that students who are academically struggling will benefit from group work, rather than fall behind. I also make sure that the group includes students with different academic levels to collaborate and add to the group in different ways.”

On the other hand, one participant explained:

“It is challenging for me to implement active learning because I have many students who are struggling academically, so it is difficult to do group work and rely on the students to do the work. I must work hard to find activities that would support the students on their level and that would engage them in their learning process with me guiding rather than doing the work.”

It was apparent in one of the classroom observations that the teacher had to give a lot of guidance during the activities. In the two classrooms with large number of students, I noticed that the teacher had to give more guidance to certain students. For example, during group work, the teacher went around to make sure the students who are academically struggling were being included in the small group conversation. The teacher asked the students to give a chance to their friend to say his/her opinion.

Students Collaboration Lacks Peer Interaction

As Hussein (2021) stated, students' collaboration is an important component for effective student engagement and active learning implementation. However, none of the participants talked about student collaboration and its importance. The participants focused more on students' individual participation in the learning process, rather than their collaboration. Researchers Thomas & Tewell & Willson (2017) noted that in most school systems, most students tend to work individually rather than collaboratively. This was prevalent in the classroom observations. All seven participants mentioned that group work was an essential strategy they used for students to learn collaborative skills, but none of them emphasized the importance of peer-to-peer collaboration.

During the classroom observations, students were engaged in their learning by either doing group work or going to the white board to compete boys against girls. This is where the teachers asked a question to all the boys to answer, and the boys chose one of them to write the answer on the white board. Then, a different question was asked for the girls to answer or sometimes asking the same question for both the girls' and boys' team and seeing which team would write the correct answer first.

Another example was using the wipe sticky boards that are used for grammar (image 1). I observed collaboration between the students only during the group work time. Other than group work time, students' participation was more focused on individual participation that is independent of other students' contributions. For example, the teacher would ask a question and ask one student to answer it. Sometimes the student would stand and answer the question. Other times the student is asked to go to the board to write the answer, or the teacher would choose a student to use one of the academic tools that are available around the classroom to construct and deconstruct new words.

In one of the classroom observations the teacher asked the students to form groups to work together and wrote four questions on the board for all the groups to answer on a paper. The teacher reminded the students that all group members must participate. She told them how, in every group, one student should write the answer on the paper, another should share the answer verbally and the third member would go to the board to write the answer to the question. After five minutes for forming the groups, the teacher reminded the students that all group members should know the answers to the question, and if she chooses one student from the group and he/she doesn't know that answer, the group will not take the point, even if other members of the group know the right answer. The teacher does this to ensure that all the students in the group are included and that students who are academically performing well are helping to make sure that the other team members are not falling behind.

In this observation, group work was divided into two: they worked in small groups that the teacher previously assigned at the beginning of the year, or the class was

divided into two groups, boys and girls. This was usually when the teacher did a competition between both boys and girls.

In all classrooms observed, the desks were set facing forward to the board, so the students were facing the teachers. During group work time, students would rotate their bodies, so they were facing their group members who were sitting behind them. Students only talked to each other if it was group work time. Other than the time designated for group work, students worked individually. They were actively engaged but as individuals. For example, the teacher would hold sticks with the students' names and randomly choose a stick and ask that student to solve a question, deconstruct a word, or read aloud. If the teacher doesn't call on a student to answer a question or participate in an activity, the student is expected to be quiet.

In six of the classroom observations the researcher noted that teachers would tell the students to stay quiet and not talk to each other unless they were instructed to do so. In one of the classroom observations the teacher started writing on the board, so the students chatted together. The teacher looked at the students and with a very serious-looking face and voice and said, "I said no talking." One teacher told the class that they would not participate in the Christmas party if they didn't stay quiet. Another teacher had a sign in-class with a smiling face and a sad face, and she would put the students name on the sad face part of the sign if the student talked to their peers. A third teacher told the students that if they make noise, she would not allow play time or allow the students who talked to take part in play time.

Conclusion

In conclusion, chapter four presented the findings of the study. Five major themes emerged through the data analysis that contributed to helping understand teacher perception of active learning implementation. The participants identified many opportunities to help them implement implementing, such as professional development, the flexibility and quick response to their requests from the school leadership. However, there was one participant who had a different opinion, and stated that the school leadership doesn't provide any support for the teachers. Participants also talked about the challenges they face to implement active learning. The teachers mentioned that classroom management, and the large number of students in the classroom with different academic needs, could be challenging. The teachers also shared their perceptions regarding play and the effect it has on the students. Describing play as a tool used to grab students' attention, as a tool to convey information, and as the 'fun time' that helps the teacher build a relationship with the students.

Chapter five will present these findings in relation to the theoretical framework and an interpretation of the findings connecting it to the literature review in chapter two. Chapter five will also include implications of the study for policy makers and recommendations for future research.

CHAPTER FIVE: Discussion and Implications

This qualitative study explored teachers' perceptions of active learning focusing on the challenges and opportunities that make active learning implementation possible in a low-income elementary school in Egypt. An understanding of teachers' perception of active learning implementation may contribute to a better sense of identifying specific areas that require more attention and training to maximize the benefits of active learning and influence policy and practices to support active learning instruction. Therefore, the study explores how teachers perceive, experience, and describe students active learning.

Five Research Questions Guided This Study:

- (1) How do teachers perceive the implementation of active learning as a pedagogical approach?
- (2) What challenges and opportunities do they face when implementing active learning?
- (3) How does students active learning impact collaboration among teachers?
- (4) Do teachers feel supported to implement active learning? Why or why not?
- (5) What supports do teachers and administrators believe are needed for active learning to succeed?

The study utilized two data collection methods: seven interviews and six classroom observations, each classroom observation for a total of nine hours. Classroom observations took place before the interviews. The observations guided the one-on-one semi-structured interview questions (Appendix A). The study provided an opportunity to understand teachers' lived experiences implementing active learning in a low-income

private school in Egypt.

Five Major Themes Emerged From the Data Collection:

Theme 1: Effective leadership that enables powerful teaching.

Theme 2: Active learning as an effective pedagogy.

Theme 3: The value of play for advancing learning.

Theme 4: Professional development is essential for teachers' instructional effectiveness.

Theme 5: The role of teachers' pedagogical expertise in influencing their ability to implement active learning.

The literature in Chapter 2 discussed active learning and gave PBL as an active learning pedagogy used to engage students. In the Global competitiveness report for the year 2014/2015 World Economic Forum, Egypt ranked 141 out of 144 countries in terms of the quality of primary school education (World Economic Forum, 2014; El Baradei, 2015). This alarming data shows a need for change in how schools educate children. As shown from the findings of this study, teachers are implementing the basics of active learning where most student engagement is individual rather than cooperative. From the interviews, it was also apparent that teachers need to focus on the skills that the students can build through active learning. A change could happen if teachers value these skills and add them to their objectives. Students Active learning and teachers' teaching should not be separate. They should complement each other's. Through the literature review, I gave PBL as an example of a pedagogy that incorporates students' active learning and engagement and focuses on students' collaboration and the different skills that PBL develops that are needed for students to succeed in the 21st century.

Egypt faces high unemployment, with 11% unemployment (Ramage & Skinner,2019). This could be because students need to learn the skills that the market needs or that there is a higher supply of college graduates than the market needs. Moreover, “the skills mismatch between what the labor market offers and what young people expect continues to grow. Graduates, misinformed about the country’s working conditions and requirements, have educational profiles that are inconsistent with reality. Jobs that offer financial stability, employment security, and social protection are rare in Egypt” are all reasons for the high unemployment faced by college graduates (World Bank and OECD, 2015). Accordingly, finding graduate students who were top of their class yet remained unemployed for several years is becoming more common. This unfortunate situation can be attributed to the fact that the exams test for memorization of facts rather than critical thinking and problem-solving (OECD,2015). In Egypt, there is the concept of a model answer where students learn how to perfectly answer a question and write exactly what the teacher is looking for in the answer rather than using their agency and knowledge to respond. “When teachers ask questions in the classroom, they are mostly closed, lower-order questions requiring direct factual replies, often in unison by whole classes.” The limitation of the learning experience is not only that what students are taught bears little connection to real life and current circumstances, but it is also that the way most students are taught and how they are learning is not developing their cognitive skill” (World Bank, 2015).

Schools must focus on an education that teaches collaboration, communication, and critical thinking skills by focusing on test scores. Voogt and Roblin (2010) stated that collaboration, communication, critical thinking, problem-solving, and ICT literacy are essential tools for thriving in the twenty-first century. Accordingly, schools must reimagine how best to educate all children to thrive in an ever-changing world and meet workplace needs. A high-quality education does not focus strictly on English language, arts, and math acquisition but follows a more holistic approach that educates students. To do so, teachers must change their teaching from teacher-centered to student-centered, where students become active learners critically engaged in their knowledge construction. Research has shown that there have been various types of in-class instruction (e.g., project-based learning, problem-based learning, cooperative learning, and flipped classroom), all of which focus on student engagement. My research focused on students' active learning and engagement rather than focusing on one specific type of instruction. The main point is to focus on students' engagement and collaboration in class, an important criterion available in all instructions that promote students' active learning.

Schools must help students reach the creating, evaluating, and analyzing stages of learning. If we use Bloom's taxonomy to tell where students' learning is in Al-Dar School it would be at the applying level. This was concluded from both the interviews and the classroom observations. Even though the teaching is at the applying level, the data currently available in the literature review shows how the educational system in Egypt is struggling.

Discussion

The data collected showed that *tailored ongoing professional development is critical*. This finding aligned with Lee & Blanchard (2015) research which stated that “insufficient professional development is one of the most frequently cited barriers to pedagogical change.” Six participants expressed how they feel confident engaging students, knowing precisely what to do and what is expected from them. When asked about the support that is available at school, one of the participants mentioned the mentors that are available weekly at the school who also provide a weekly lesson plan and stated,

“I felt confident going into class when I was a first-year teacher. I followed the lesson plan as it was. I was afraid to change anything, or else I will get off track. Now I use the lesson plan to guide me, and I feel at ease to make changes to it.”

All participants supported the previous statement. They expressed that the lesson plans that the mentors provide, gives them confidence in their ability to manage the class. ‘Manage’ does not mean controlling the class – it means daily facilitation, including being both a firm and fun teacher, often during the same class time. However, out of the seven participants, one participant expressed a different opinion of the PD that the school provides. She described it as *“boring and repetitive.”* It is essential for a school to take teachers opinions into consideration and make changes to meet the teacher’s needs. For a PD to succeed, it must align with the teachers' areas of struggle and needs (Schachter, Gerde, Hatton-Bowers, 2019). Teachers feel it wastes time when the PD is not targeting

their needs or adding to their professional growth.

Two PDs occur at Al-Dar school, once during the summer and another during the winter break. Moreover, outsourced mentors come weekly to support the teachers and offer lesson plans for the teachers that they must follow. Teachers from the same grade follow the same weekly plan; they teach the same lesson, assign the same homework, and use similar tools to deliver the lesson. This helps the teachers feel more confident. It makes them feel at ease as they have direct contact with these mentors, and they know that each week they will be able to meet with the mentors who will guide them in the next lesson to be taught. The supervisor and teacher participants agreed that the PD is effective and that providing a weekly lesson plan is essential. The supervisor stated,

“To engage students a teacher needs to be creative, and not every teacher has the talent to incorporate new ideas. Therefore, the lesson plan that we provide paves the way for teachers who struggle to be creative and those teachers who don’t yet feel comfortable implementing active learning.”

The drawback of this model is that teachers might over-rely on the mentors and stop being creative with their teaching techniques and activities.

The results of the study showed that *flexible leadership promotes change*. Teachers feel more motivated to implement PBL when supported by their school leaders regarding time flexibility, trust, and autonomy (Kokotsaki et al., 2016). Aligned with research questions two, three, and five focusing on the support teachers need and the opportunities that are available to implement active learning, the participants described different types of support they get or need from their school leadership. Although six participants

mentioned school leadership support when asked about the opportunities and challenges in implementing active learning. One participant talked about the need for more leadership support. She explained that too much was asked of the teachers, from integrating new teaching methods, to meeting with parents, and being available for break duties. This one participant with a different opinion gave the research more depth, as her opinion differed from the other six participants regarding the level of leadership support and the effectiveness of the school's professional development. Many questions arise from this counter opinion: Would interviewing more teachers bring up more of this counter opinion? Could it be because she doesn't feel appreciated? She's doing more work than her job description and not getting credit.

Research has shown that the school administration's attitude and behavior in interacting with teachers influences teachers' approach towards dealing with their students (Price, 2015; Huang & Francis & Dewey, 2018). There needs to be more effective communication between the administration and the teachers to understand teachers' opinions and address their needs. It could be challenging for the school leadership to have many satisfied teachers and, at the same time, be observant of those other teachers who could be struggling differently. However, it is essential to address those teachers' needs as their attitude could affect the school culture negatively.

All seven participants discussed the importance of an available and flexible leader. Even the one participant who spoke about not feeling that she had leadership support mentioned the importance and the difference, personally and professionally, if she had a supportive leader. MacMath (2017) noted that PBL implementation is most effective

when the school administration supports teachers, teachers utilize a shared vision, and a school culture where the teaching and learning are student-centered.

The participants made a distinction between their Grade-level supervisor and the school principal. They talked about their supervisor as a mentor and how she collaborated with them to ensure they succeed and provided support inside and outside the classroom. On the other hand, they viewed the school principal as the person who made all the decisions and whom they go to for significant challenges. For example, this was shown by one of the participant's experiences when she asked the principal for a schedule change and to have one of the subjects removed from her schedule, and the principal approved the request. This made the teacher feel supported and appreciated. A decision like that builds an environment of trust and support.

They explained how school leadership support is essential for them to do their job and give the students all the effort and support they deserve. The leadership support made them feel at ease and not have to worry about anything besides their teaching. A supportive leader increases teachers' self-efficacy, which affects teachers' belief in their ability to motivate and engage students in active learning (Liu, Bellibaş, & Gümüş, 2021). It is clear from the interviews that the teachers have a safe environment to share their needs, and this reflects in their attitude toward their students, and willingness to give more and be more efficient.

The findings also support the available literature that, even though researchers agree that PBL is a student-centered approach, *there is no one clear definition of PBL*. It was important to know teachers' perceptions regarding PBL's definition to know how much

they understand what PBL is and the effect of it as a pedagogical approach. For teachers to be able to implement PBL effectively they need to have a clear definition. Researchers Bell (2010) and De Graaff (2007) mainly defined PBL through student collaboration. However, the review of the literature does not settle on a consensus of a single definition for PBL. In this study, teachers viewed PBL through students' active engagement, whether through collaboration, group work, or individual engagement. Participants struggled to define PBL. Instead, they gave examples of activities they do to engage students rather than clearly defining active learning.

The differences between how researchers defined PBL, and how teachers defined it, could be limited by the curriculum and collaboration time the teachers have to offer students. Voogt and Roblin (2010) stated that collaboration and communication are essential tools for thriving in the twenty-first century. It is important to note that all participants agreed that active learning is a pedagogical approach that engages students, and help them construct, and retain information. They also agreed that the old teaching method, mainly lecturing, cannot be used in the 21st century.

One of the main differences between active learning and traditional methods is that active learning is teacher-facilitated and student-driven. From the participants' responses, it was clear that they understood the importance and effectiveness of active learning as a pedagogical approach. All seven participants agreed that the main characteristic of active learning is students' engagement.

They talked about play being used to convey information or to grab students' attention. It was apparent in the classroom observations that play is part of the student's

daily routine. As such, the teachers shifted from teaching to playing very smoothly, describing specific activities they use to engage students, such as small group work, role play, and individual student participation. In most classroom observations, there was student engagement throughout the lesson.

The majority of the time, students were engaged individually. For example, the teacher would ask one student to answer a question or solve a problem individually. One participant explained that this helps them ensure all students are on track, participating, and not falling behind. One tool all classes used were the sticks with students' names, where the teacher randomly chose a student to participate in-class, making sure all names got called on. From the data collected it was clear that there was a gap between the understanding of active learning and the importance of student collaboration. Teachers' focus was more on involving students in the learning process, but not necessarily encouraging collaboration. All participants explained that this was due to time constraints.

When asked in the interview what challenges they faced in implementing active learning, all participants agreed that they *struggled to allocate sufficient time for student collaboration*. Although they mentioned the importance of collaborative work and communication skills, knowing that student communication, critical thinking, and problem-solving are essential tools to thrive in the twenty-first century (Voogt & Roblin, 2010). They often struggled to incorporate it due to limited time. When asked about the challenges the participants faced, all agreed that time was a challenge. They discussed how they need to finish the curriculum, meet the deadlines, and yet also need to engage

students, which takes time. One participant stated,

"I sometimes feel pressured because the teacher's guide provided many engaging activities for the students for each lesson. I need to deliver the information in a limited time, not giving enough time for students to interact together."

The number of students in the class and their academic level were also challenging for two of the participants. They both described how students with learning difficulties need more time from teachers to have the confidence to engage in-class. However, they added that they ensure these students participate even if it is with a simple task. In most school systems, most students tend to work individually rather than collaboratively (Thomas & Tewell & Willson, 2017). The results of this study showed the need for instructional practices that incorporate student collaboration. Creating an effective active learning environment requires students to collaborate and work together.

Implications

Specific criteria must be present in a school, for active learning to be effective. If schools want to incorporate PBL, and see positive outcomes on students' academics and skills, such as communication and collaboration, that are essential to succeed in the twenty-first century, schools need to change the curriculum to support active learning within the classrooms fully. When this happens, it will affect the time allocated to students' active engagement, which leads to the development of essential learning skills.

Based upon the data collected, it was apparent that participants struggled with having enough time to implement active learning, indicating they would support students

struggling socially and academically if they had more time. Teachers felt pressured that they needed to be on track to finish the curriculum, which is a district mandate. Because they are working under the pressure of meeting deadlines, rather than working on the student's academic level, they struggle to ensure they meet students' needs. When teachers feel supported by their school leadership regarding time flexibility, they are more willing to implement active learning (Kokotsaki et al., 2016).

The district needs to reconsider what is being asked of the teachers for a district to effectively incorporate higher level of active learning such as PBL. The teachers are asked to finish the curriculum, provide students' portfolios, and have a support plan for struggling students to help them develop according to Grade-level. Moreover, teachers need to supervise during breaks and lunchtime. All these requirements from the school leadership and the district limit the teacher's ability and put them under pressure affecting their ability to engage students in their learning. As the site for this study, Al-Dar school supports the teachers by providing the weekly lesson plans they follow, which include specific activities, lesson goals, and objectives for the students that promote active learning.

In addition, for a school to truly make an impact through active learning instruction, teacher training needs to meet teachers' professional needs. It must be differentiated PD for all teachers considering the years of experience and the needs of the teachers. The PD must be catered to the teachers based on their needs to succeed, whether it is class management skills, students' social-emotional learning, or teaching techniques. Schools sometimes struggle to provide varied PDs to the teachers due to financial

constraints and time.

Theoretical Framework

This study utilized John Dewey's "learning by doing" approach; Dewey strongly believed that students and people generally learn best by doing, rather than passively listening to instruction. He also believed that learning occurs when students engage, explore, and connect their learning with previous and current experiences (Dewey, 1899). As suggested by the participants' students, active learning led to a fulfilling learning experience for students engaged with the content.

In addition, learning happens when teachers become facilitators who support collaborative and social interactions during the learning process. Through the classroom observations and interviews in this study, it was clear that teachers supported students' learning using active learning strategies in the classroom to enhance instruction; whether through play, group work, or students' participation in using the educational tools around the class. Moreover, teachers supported these observations by expressing in the interview how they view active learning as a pedagogy to engage students.

Recommendations

The following recommendations are for K–12 policymakers and school leaders seeking to prepare students for the twenty-first-century teaching and learning. The recommendations are based on the implications of this study.

The following recommendations are for **policymakers**. This study showed that

the school curriculum significantly influences teachers' ability to implement active learning. Most participants mentioned how the teacher's guide paved the way for implementing active learning and gave them ideas about new ways and activities to engage the students. Therefore, the first recommendation is to offer a curriculum that promotes and encourages students' active learning.

Based on teachers' feedback, time was one of the main struggles they faced in implementing active learning. Time was a struggle for all participants. It was difficult for them to encourage students' collaboration because they needed to finish the curriculum in a specific time. Therefore, the curriculum must be designed to consider the time the teachers need to implement active learning. Therefore, PBL should be integrated into the curriculum and not be an additional task for teachers.

The second recommendation is for **school leaders**. Participants stated that supportive and flexible school leadership was a key factor for them to implement active learning effectively. Therefore, the first recommendation is for school leaders to be present and supportive. This support should be shown by making an effort to promptly understand and respond to teachers' needs. A school day passes quickly, and the teachers are usually very busy during the day; responding to their needs supports their ability to focus and be more efficient.

The second recommendation is to provide resources that aid teachers in implementing active learning. These resources could be costly, such as the smart board or affordable resources for the teachers to make educational tools. The third recommendation is to offer professional development to the teachers relevant to their

needs and ensure that the professional development targets professional growth.

Limitations

As with many research studies, there were limitations with this study. First, this qualitative case study focused on teachers' perceptions of active learning implementation in a low-income elementary school in Giza, Egypt. The study was conducted within one school district located in Giza, Egypt. Because one research site was utilized, more robust data could have been collected if the research had occurred in more than one district with more participants. The study included a small sample of seven participants: six teachers and their supervisor.

The second limitation is that the study occurred in a private school which comprises a small percentage of schools compared to public schools in Egypt. The third limitation was time. Only one classroom observation was conducted for each participant due to time constraints.

Another possible limitation of this study could be that my uncle is the owner of the school, and that I was an assistant principal for four years from 2014–2018, which could cause some participants to be reluctant to share their true opinion. However, I believe that I have a good relationship with the teachers, and they trust me based on our relationship when I was assistant principal, which continued after I left the school. This relationship made the conversation seem informal. At the end of the interviews, three participants shared how much they appreciated they felt at ease to talk to me as a school leader they trusted. The classroom observations were easy to conduct as the teachers were

used to me being in their classroom when I was an assistant principal.

Recommendations for Future Research

While this study adds to the literature by focusing on teacher perceptions in a low-income private school in Egypt, several opportunities for future research emerged that would contribute to the education system in Egypt in both the private and the public schools. Three potential research studies emerged from this research.

The public school system serves 92% of the student population (Baradei, 2015). Therefore, a longitudinal study in a public school including more Grade-levels and focusing on collaboration between teachers to implement pedagogical change would be a suggestion for future research.

This study explored teacher perception of implementing active learning in Grades 1, 2, and 3. A future study should examine the other grades in the school, teachers' perspectives, of active learning, and implementation differences across Grade-levels. Could active learning be successful in one Grade-level and not the others? Would more teachers view the school leadership differently, like the one participant in this study?

The researcher also recommends a qualitative study exploring students' achievement before, and after, active learning implementation in Al-Dar school. This study could explore the effectiveness of active learning

Conclusion

The purpose of this study was to explore teachers' perceptions and experiences implementing active learning as an instructional pedagogy in the classroom. Research showed that collaboration, communication, critical thinking, and problem-solving are essential tools for thriving in the twenty-first century (Voogt & Roblin, 2010; Bonwell & Eison, 1991). Traditional teaching methods that focus on rote learning and memorization, decenter learners' experiences and contributions have not been effective in advancing learning. Change is needed.

In Egypt, these traditional approaches have contributed to the "estimated 30 percent of school children who lack basic skills for reading and writing" (Mohamed & Skinner, 2019, p.20) leaving these children at a significant disadvantage, especially when it comes to their future prospects. The study aimed to develop a more profound understanding of teachers' perceptions and experiences of implementing student engagement and active learning to explore how these perceptions affect the effectiveness of their implementation. Thus, the findings may be used to suggest future policies, and improve decision-making, by policymakers and school leaders interested in advancing learner-centered pedagogical approaches.

The findings of this research showed the need for teachers' professional development that aligns with their needs and that of their students. More specifically, there was a clear need for differentiated and personalized professional development based on teachers' needs that consider teachers' lived experiences, instructional expertise, and what PDs they have attended so that it is not repetitive over the years. In addition,

participants emphasized the importance of supportive school leadership as a critical driver for their ability to effectively incorporate active learning. They expressed their appreciation for the flexibility and understanding of their leader, and her interest in advancing their pedagogical content knowledge.

The findings also indicated that teachers lacked a clear definition of PBL but rather constructed its meaning based on the activities they associated with active learning. For example, they gave examples of the activities that they practiced in their classrooms when asked about the meaning of PBL. They explained their main focus was enabling and incentivizing student engagement through play, role play, and group work rather than an instructor-centered lecturing approach where learners passively listen to the information.

Through my analysis of the data, an unexpected finding was that the participants expressed how group work was utilized to encourage student engagement with the content with the goal of bolstering their interest in the information and advancing their content knowledge. Teachers did use it for promoting student collaboration and relationship building by encouraging peer-to-peer engagement, which is one of the goals of active learning. Only one participant emphasized the importance of student collaboration, and the important skills students learn through collaboration. This tension in fully implementing all aspects of active learning was explained by the participants as a limitation that they face due to time constraints and the need to finish the curriculum. These challenges constrain their ability to use more class time to promote students' collaboration.

All children deserve the right to equitable, high-quality education regardless of their socioeconomic, cultural, ethnic, racial, or other intersectional identity. Given its utility as a tool for social change and advancing social welfare. School leaders and policymakers must explore pedagogical and instructional approaches that can advance student learning and achievement. This study is situated as a part of the research that aims to explore pedagogical approaches that can advance equitable learning.

Appendix A

Interview Questions

1. How did the resources here at school assist you in implementing active learning?
2. What support do you need to effectively implement active learning and what factors cause challenges to you as you attempted to implement active learning?
3. To what degree were you able to successfully implement active learning per the elements required by the school administration?
4. What do you expect to take away from active learning professional development to help you implement project-based learning?
5. How confident were you as you implemented active learning for the first time?
6. What factors led to your level of confidence the first time?
7. How confident were you as you implemented active learning later?
8. What factors led to your level of confidence later?
9. How well were you able to provide innovative projects for students that embodied true active learning elements as the implementation process continued?

Appendix B

Observation Protocol

1. How did the teacher engage the students
2. How long did the teacher talk
3. Do students communicate together
4. Did the students get a chance to ask questions
4. Things I have noticed

Appendix C

Teachers' Consent Form

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. If you have any questions about the research or any portion of this form, please ask me.

The person in charge of this study is Maha Elkabani. Participation in this research is voluntary, which means that it is something for which you volunteer. It is your choice to participate in the study or not to participate. If you choose to participate now, you may change your mind and stop participating later.

The purpose of this study is to explore Egyptian teachers' perceptions and implementation of Project-based learning and the opportunities and challenges they face when teaching grades 1–3 in a Low-income private school in Egypt. Moreover, it investigates how teachers promote active learning and student engagement within their classrooms. We are asking you to take part in this study because you are a teacher in grades 1–3. If you decide to take part in the study, you will be asked to be interviewed once—after the classroom observation.

The main risk of allowing us to use and store your information for research is a potential loss of confidentiality. We will protect your privacy by not mentioning the subject you teach and not mentioning your name. you will be allowed to read the research before it is published and given the chance to leave the research anytime you want with no consequences. Only I and certain BU offices in charge of monitoring human subjects research for safety and quality improvement purposes will have access to identifiable information. These offices include BU Central Offices and the BU Institutional Review Board (BU IRB). If you have any questions or concerns about your rights as a research participant, please contact the BU IRB at irb@bu.edu. The [IRB Office webpage](#) has information where you can learn more about being a participant in research, and you can also complete a Participant Feedback Survey.

The results of this study will provide implications and insights about teachers' perceptions and experiences of implementing active learning that will offer recommendations for policymakers, teachers, and school leaders to seek, promote and support instruction taking place in the education system. Providing insight into teachers' perception in implementing

active learning will contribute to the field of education by helping leaders better understand how to create conditions where students' active learning can be implemented as a successful curriculum intervention in schools where there are limited resources, specifically in the context of a low-income school in a rural area in Cairo, Egypt.

If you have any questions about the study, please contact me or my faculty advisor at the contact information listed below:

- **Maha Elkabani - [REDACTED] - Mahak@bu.edu**
- **One hours of interviews and two hours of in-class observations**
- **Faculty advisor: Robert Weintraub - rjtraub@bu.edu - [REDACTED]**

Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.

Appendix D

Parental Consent Form (Student Observations)

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. If you have any questions about the research or any portion of this form, please ask me.

The person in charge of this study is Maha Elkabani, a doctoral student at Boston University. Participation in this research is voluntary, which means that it is something for which you volunteer. It is you and your child's choice to participate in the study, or not to participate.

The purpose of this study is to explore teachers' perception and implementation of active learning. We are asking you to take part in this study because you have a child in grade 1, 2 or 3. I will be conducting this research and your child will be in the classroom during one of my observations. This research does not interfere with regular instruction and I will be just observing at the back of the class and will take observational notes only in the classroom for 50 without direct interaction with the students.

The main risk of allowing us to use and store your child's information for research is a potential loss of confidentiality. To protect your child's privacy, I will limit the amount of information I record about your child during my observations. All information is collected anonymously, which means that names or any personally identifiable information will not be recorded in my notes. All the notes will be kept in a secure database hosted by Boston University.

Only I, my faculty advisor and certain BU offices in charge of monitoring human subjects research for safety and quality control purposes will have access to this information. These offices include BU Central Offices and the BU Institutional Review Board (BU IRB). If you have any questions or concerns about your rights as a research participant, please contact the BU IRB at irb@bu.edu. The IRB Office webpage has information where you can learn more about being a participant in research, and you can also complete a Participant Feedback Survey.

Participation in this study is completely voluntary, and you and your child may choose to stop participating at any time. If you do not wish for your child to be observed for this study. At no time will your child be excluded from class if you or your child choose not to participate in the study.

There are no costs to participation, and neither you nor your child will receive payment for taking part in the study. You and your child's decision to take part in the research will not affect your child's class standing or grades.

If either you and/or your child do not want to participate, please contact me at [REDACTED], and I will not take notes on your child during the research study and will not collect copies of your child's schoolwork during the class that I observe.

If you have any questions please contact me at [REDACTED]

Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. I have discussed the study with my child. My questions have been answered to my satisfaction, and I agree to participate in the study. No further action is needed if you and your child agree to being observed by the researcher.

Appendix E

Email sent to the participants

Do you teach grades 1, 2 or 3?

Do you want to contribute to a growing body of research on teachers' perceptions of student engagement and active learning?

If interested in participating, please contact:

Maha Elkabani
Graduate Student at Boston University
mahak@bu.edu
[REDACTED]

A research study through Boston University

Seeking volunteers who are willing to be interviewed one time and observed in class for one two class periods for a total of 80 minutes.

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