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Experiential Learning Best Practices and Successes in the K-8 Classroom

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EXPERIENTIAL LEARNING BEST PRACTICES AND SUCCESSES IN THE K-8 CLASSROOM

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Abstract

This paper aims to analyze the best learning practices and success stories of experiential learning in the K-8 classroom. Experiential Learning is explained through research done in the K-8 classroom. Research is analyzed showing how experiential learning has helped students be successful academically. How to incorporate experiential learning practically into the classroom is explained. How teachers can bring this type of learning into their classroom daily is discussed with provided ideas. Success stories are analyzed for best practices and proof of experiential learning working. The success stories show what experiential learning can do for all students. Hands on experiential activities have been shown to increase student academics and enjoyment towards subjects and learning. Students who participate in learning through experiences that connect to the real world have shown to be successful.

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CHAPTER I: INTRODUCTION

History of The Experiential Learning Theory

Experiential Learning Theory moves practice for students to authentic tasks that increases their learning. Experiential Learning Theory as stated by Yardley, Teunissen and Dornan (2012) is, "Constructing knowledge and meaning from real-life experience" (p. 161). Real life experience referrers to hands on learning in the classroom. For the sake of this research, hands on learning is defined as, "Relating to, being or providing direct practical experience in the operation or functioning of something" (Merriam-Webster Dictionary, 2019). Experiential learning can be used in the classroom to deepen students' understanding of topics through hands on experiences. David Kolb published the Experiential Learning Theory in 1984. Kolb's theory has four stages: experiencing, reflecting, drawing conclusions from experiences and applying those conclusions to new situations (Farber & Bishop, 2018). During the learning experience, students move through this cycle to create concrete experiences. Students then use their learning to connect outside of the classroom experiences to inside the classroom experiences. Studies show that students who participate in experiential learning are more likely to succeed academically. These students have also shown to have more interest and excitement towards the topic being studied.

The idea of experiential learning started with John Dewey in the 20th-century. Dewey brought the word "experience" to education (Seaman, Brown & Quay, 2017). He believed that children weren't receiving experience in their education. He was an activist for getting students involved in their learning. There is no actual evidence that he used the term "experiential learning", but what he was doing and promoting is what we now refer to as the Experiential Learning Theory. The term experiential learning didn't come around until between 1950 and 1969. Because of Dewey's activism the idea of experiential learning came to be known. Psychologist Kurt Lewin had an influence on

experiential learning around 1944. Lewin led a training to a group of Connecticut Interracial Commission and the American Jewish Congress for two weeks. He led an action research training on how to deal with conflict. Lewin used collaboration between researches and practitioners to come up with ideas about religious conflicts. Seaman et al. (2017) states "The two-week training program began with an experimental emphasis encouraging group discussion and decision making" (p. 40). The group participated in active learning through experience. His method of leading the group later led to helping the Theory of Experiential Learning to come around. After Lewin used this experience in learning for teaching this civic group, it spread. The major spread happened during the 1960s and 1970s. The method was spread to different groups of people apart of different systems. Education started to take on this idea of learning through experience. Kolb then came up with the official Experiential Learning Theory and published it in 1984.

Active Engagement

Theorists have found that learners need to be actively engaged within their learning in order to fully submerse themselves in learning. By learning through experience, they can link new experiences to prior experiences, which creates a deeper understanding of concepts. Students can take their learning even farther when they are provided with these different connections. The new information isn't isolated if prior experiences are connected to it. By providing more connections and having this coherence in the brain, the human body is able to remember the knowledge longer.

The Experiential Learning Theory also gets students active in a physical way. Students are up and moving, not sitting all class period. This may be as simple movement as working with a group and creating a poster, traveling around the room to different stations or going outside to gather data. By providing these movement breaks for students their cognitive functions are enhanced. Da Cruz (2017) found that, "Current research results indicate that exercise fosters the development of

cognitive functions, particularly, executive function" (p. 121). An executive function is behavior such as working memory, inhibition, and cognitive flexibility. By enhancing these functions on the brain students are more activaly engaged in learning. By providing physical movement and active brain engagement the Experiential Learning Theory has shown to be successful in K-8 students.

Key Vocabulary of Research

Learning styles references the different ways students learn (Biabani & Izadpanah, 2019). The Experiential Learning Theory developed by Kolb was based off of learning styles. Kolb believed different learning styles needed to be scaffolded. That is why he developed a theory that includes activities such as: touch, reflect, thinking and doing. A person's learning style will decide which ways they learn best (touch, reflect, thinking, doing). Finding someone's learning style can be found through a simple test with a series of preference questions. The Experiential Learning Theory provides opportunities to use all of these types of learning. Experiential learning takes on the whole person, through experiences that use touch, reflect, thinking and doing. Kolb believed that by using all these different experiences the best education is given.

One of Kolb's biggest pieces of the Experiential Learning Theory is reflection. Biabani and Izadpanah (2019) state "Reflection is turning experience into learning" (p. 519). Reflection is known to be the time that learning really happens. Once students have the opportunity to experience hands on learning, they need time to reflect on what they did. When the student reflects on their work, a real connection is made about what happened during their experience. This connection is what makes experiential learning so unique. By providing learning that students can experience new things, their learning is made more concrete. Reflection is a piece where students can go back to their work and see a few different pieces that they may not have seen during the activity. The student can see what

progress they have made, what connections they have made, what questions they now have and what they could have done differently. This part of Kolb's cycle is where the most learning happens.

Service learning is talked about in this research. Service learning is defined by Elliott (2016) as, "A curricular approach in which students explore problems in their school or community and develop plans to solve them" (p. 2). Students explore through experiential learning to develop plans and reflect on the outcome. Service learning is a type of experiential learning used in schools to help students make connections between real life experiences and classroom experiences. Service learning has been shown to increase students' interest in classes at school and in careers. Service learning research is used in this text to explain why it is important for students to use Kolb's cycle of learning: experiencing, reflecting, drawing conclusions from experiences and applying those conclusions to new situations. Students go through this cycle when using curriculum based service learning project. Outcomes from curriculum service learning have shown to be positive (Elliott, 2016).

Virtual field trips are discussed in this research. Virtual field trips are used instead of off campus field trips to guide students to explore learning elements in virtual environments (Cheng & Tsai, 2019). Cheng and Tsai (2019) state "There are several barriers to implementing successful (off campus) field trips…therefore, taking students on virtual field trips may be an alternative way to diminish teachers' concerns about distance, time, safety, or the complexity of the field sites" (p. 140). The purpose of a field trip is to provide students with authentic or experiential learning experiences. Cheng and Tsai (2019) claim that they can provide this same experiences through virtual field trips. Their research discusses how to implement experiential learning into the classroom.

Project based learning is a term that is discussed often in this text. According to Ummah, In'am and Azmi (2019), "Project-Based Learning facilitates students to collaborate in conceptual understanding, to apply prior knowledge, and to gain skills" (p. 93). Project based learning helps

students solve real life problems, become good collaborators, motivate, improve content knowledge and meet the needs of students with different learning styles (Umma, In'am, & Azmi, 2019). This is a type of experiential learning that follows Kolb's model. Project based learning provides the same experiences as experiential learning does for students; the difference is that it uses projects to create experiences is a way of incorporating experiential learning.

Why K-8 Best Practices and Success Stories are Important

Finding the best practices for K-8 and researching success stories can teach professionals how to best implement the Experiential Learning Theory into their classrooms. It can provide research on why experiential learning should be used in the classroom. When researching best practices, information is looked for to help professionals understand the most effective time and ways to use experiential learning in their classroom. How to implement this type of learning into the mainstream classroom is discussed. Professionals have limited time to implement and try new things in the classroom. This research will provide tangible ways to slowly and practically implement experiential learning into the classroom.

Experiential learning is something that should be cared about by educators because it has been shown to be one of the most successful ways to have students learn. Educators should care about this type of learning to help better their students' education. Research shows that experiential learning is one of the best current teaching practices. It is a beneficial way to help students become successful in school and after they graduate. Experiential learning has shown to leave students with impacting experiences leading them to career choices that they wouldn't have had before these learning activities.

Experiential Learning Theory techniques are unique in that they can work in a variety of settings. These techniques can be used in English class, math class, social studies, science, etc. There

are a wide variety of ways to have students be actively engaged and experiencing. Students can use experiential learning outside, in groups, through reading, presentations, etc. Teachers can provide small experiential learning activities that take a class period or project experiential learning activities that take weeks. There are many ways that work for this theory. This text will discuss different ways to use and incorporate these types of ideas into the classroom.

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

To locate the literature for this thesis, searches of ERIC, EBSCO, and Academic Search Premier were conducted for publications from 1990-2019. This list was narrowed by only reviewing published empirical studies from peer-reviewed journals that focused on experiential learning, inquiry-based learning, hands on learning, field study learning, project-based learning, science, and middle school. The key words that were used in these searches included "experiential learning in the classroom," "hands on experiences in the science classroom," "project-based learnings effect on student success," "middle school students and inquiry based learning," and "field studies for students." This chapter will conduct a review the literature on the effect experiential learning has on the classroom in three sections in this order: Experiential learnings effect on the success of students, field study effects on the success of students and inquiry based learnings effect on the success of students.

Experiential Learning in the Classroom

Experiential Learning has proven to be successful in students' understanding of academic concepts. It has also been shown to keep students more engaged and to encourage positive student responses to activities. Elliott (2016) states "Experiential learning can be a source of information for educators that informs their practice, and it can be used in the classroom to facilitate deeper understanding through real-world tasks" (p. 5). The words "real-world tasks" explain the platform for experiential learning. Experiential learning is a hands on way for students to explore and be in control of their own learning.

Investigation, planning, action, reflection, demonstration and celebration (Farber & Bishop, 2018) is the main process students go through when using experiential learning. This process is

important for the students to fully understand the learning that took place. David Kolb was one of the first researchers to talk about learning styles and experiential learning. In 1984 Kolb published his theory; this theory focused on students' cognitive process. Kolb believed that knowledge was gained from experience and that was the basis of his theory. Ever since his publication of the Experiential Learning Theory, teachers have been challenged to incorporate real world and hands on experiences into learning.

Not only is experiential learning helpful in gaining knowledge, it is also helpful when students are trying to get jobs and choose careers. When asked to identify the most important skills needed for success in their industries, over 400 U.S. employers ranked the following skills as most important: teamwork/collaboration, oral communications, professionalism/work ethic, and critical thinking/problem solving (Casner, Lotto & Barrington, 2006). Experiential learning teaches all of this to students in the classroom. In experiential learning, students are asked to work with a team, think critically, solve problems, present and many other things. This way they leave with many more skills than they would have if they didn't learn in this way.

Yardley, Teunissen and Dornan (2012) explains the Theory of Experiential Learning well, "In its most simple form, experiential learning is constructing knowledge and meaning from real-life experience" (p. 161). The words "authentic based learning" can be seen in Yardley, Teunissen and Dornan's work. The word "authentic" as defined by the Merriam-Webster dictionary is "Not false or imitation, real, actual." Experiential learning is real, actual and it provides a hands on strategy of making concrete experiences.

Why Experiential Learning Works and How to Incorporate

Students who have enthusiasm about learning are more successful academically. Students need to be excited about learning and feel like they have a part in their personal development.

Experiential learning does just this, that is why it works. Mutmainah, Rukayah and Indramayu (2019) state "Experiential learning stimulates the students in their activities to think, explore, ask, make decisions, and apply what they have learned" (p. 58). Experiential learning combines these different tasks to help students learn. It gets them involved and makes learning personal. Research has shown that when students feel like they have control over their learning they learn better. Skelton, Blackburn, Stair, Levy and Dormody (2018) state "As a student-centered approach to learning, inquiry-based instruction begins with students' current knowledge, then proceeds with instructor support in developing knowledge of scientific inquiry" (NRC, 2000). This differs from traditional teaching methods that focus on the teacher as an expert (NRC, 2000; Parr & Edwards, 2004). Problem solving and higher-order thinking skills are enhanced when students are encouraged to expand their knowledge through active engagement and reflection. "Active" is a word that emphasizes students having control over their learning. For students to be active they need to have control. Teachers need to provide this opportunity for control; many students just go through the actions of learning instead of taking control and learning for themselves. If students are not provided this active experiential learning piece, they are just taking notes, listening to lectures, and never practicing the new skills or taking them into the real world. In order to provide concrete experiences for optimal learning students need to be active.

A study was done by Skelton, Blackburn, Stair, Levy and Dormody (2018) to determine if middle school students taught through an inquiry-based teaching approach consisting of scientific skill development, scientific knowledge and scientific reasoning were more likely to meet their respective science grade level expectations. Participants in this study consisted of six classes of sixth grade students and five classes of eighth grade students. The sixth grade students received enrichment as part of their earth science curriculum, which consisted of soil pH. Students in eighth grade

received programming targeted at analyzing water chemistry. These topics were identified as ideal areas for inquiry-based teaching. During this study students collected data and used a guided-inquiry approach where students were provided with a problem to investigate and the materials necessary to carry out the investigation. Students then designed and conducted their own experiments. After completing their experiments, students were required to explain the problem, their hypothesis, procedures utilized and present conclusions. In sixth grade students there was 31.5% increase in the number of correct items on the post-test. In eighth grade students there was a 40.79% increase in the items answered correctly. Skelton et al. (2018) found that active learning and engagement in hands on learning strategies have been identified as effective methods of science instruction. The results from their research demonstrated inquiry-based learning strategies benefit students and is recommended that teachers should incorporate inquiry-based learning strategies as a regular part of their classroom instruction.

Virtual field trips are something new to education. Cheng and Tsai (2019) did a study on virtual field trips. Virtual field trips allow teachers to guide students to explore learning elements in virtual environments. It provides an experiential learning experience without leaving the classroom. This study included 24 elementary school students who engaged in a two-week summer camp on the learning subject of social studies. Perceived presence, motivational beliefs and attitudes were investigated in the learning. The results showed that the students' motivation was generally enhanced, particularly for the diminishment of test anxiety and students scored higher on posttests about social studies topics. This demonstrates how providing an active experience where students take control of their learning can impact knowledge. This study was different because it was virtual. The virtual aspect still provided an out of classroom experience for the students to be involved in. Because of that involvement, students were more engaged and achieved high scores.

Mutmainah et al. (2019) studied the effectiveness of experiential learning-based teaching material in mathematics. The study was aimed at finding the effectiveness of experiential learning-based teaching material in mathematics and how to incorporate it. The subjects of this research were 54 students from the fifth-grade elementary school during the academic year 2017/2018. Twenty-eight students were in the experimental group and 26 students were in the control group. A multiple-choice test consisting of 30 questions was used to gather data. The teaching materials was identified as the greatest role in attaining mathematic learning objectives. Effective teaching materials help students learn in meaningful ways. Experiential learning in math stimulates the students to think, explore, ask, make decisions, and apply what they have learned. This type of learning works in math because students are asked to be involved in their learning experience and process what they are learning. The result of this study showed that experiential learning-based teaching material in mathematics is effective to improve the students' cognitive ability. The pretest average score of the experimental group is 44.29 and the posttests score is improved to 75.71. The controlled group pretest score is 42.95 and the posttest score is improved to 63.72.

Prabhakaran (2017) wrote an article of the analysis of theories related to experiential learning. The purpose of the article is to analyze experiential learning and determine which theory will contribute to implementation. Probhamkaran (2017) states that "Knowledge is an outcome of both objective and subjective experience which defines learning as a continuous process" (p. 1017). Learning doesn't just stop once you understand a topic; learning grows on itself and stacks and lengthens in knowledge as ideas connect. Experiential learning does just this to the brain; it helps connect pieces in everyday life to learning to help understand better. Therefore learning by experience is important for K-8 students. This research article organized the theoretical perspectives of a few researchers who investigated the conceptions of learning and defined knowledge by the types

of knowledge related to experiential learning. A chart to organize these theories was made for this article which illustrates a summary of theoretical perspectives by various researchers related to learning and forms of knowledge. The chart describes that learning occurs when there is human experience, critical reflective knowledge, interactionism and sensory experiences (Piaget). These theories all put together make the experiential learning theory. Best practices found by these different theorist demonstrate that learning by doing works the best.

A study done by Dinkel, Schaffer, Snyder and Lee (2017) aimed to explore classroom physical activity and how it helps academics. Interviews were conducted for this study (Dinkel et al., 2017). The study consisted of two parts: a short online survey and a semi-structured interview. Fifty-nine teachers completed the survey. Overall of the teachers who participated perceived classroom physical activity as favorable. The teachers were interested in learning and implementing more in their classroom to help their students' academics. There are different ways to incorporate this physical activity into the K-8 classroom. Using experiential learning students could for example: do an outdoor activity with nature, do an experiment, and walk around the school to gather data. The overall goal is to have students up, moving, and engaged.

Students need regular participation in physical activity to create a positive learning environment. Physical activity can help the development of healthy bones, muscles, and coordination, maintenance of a healthy body weight, reduce levels of anxiety and depression, and create improvements in social development (Dinkel et al., 2017). This research helps explain why students need experiential learning and why it works. Multiple studies have shown that physically active children are able to perform better academically than peers who are not as physically active.

Another study done in a kindergarten classroom was done to study how integrating movement into the learning environment contributes to the academic achievements of kindergarten students.

Shoval, Sharir, Arnon and Tenenbaum (2018) states, “Typically, the academic learning environment is separated from the environment in which children are free to move about, by allocating a different time and place for motor activities and for academic activities. This is to ensure optimal conditions for academic learning, which is considered the central component of learning” (p.1). The study was done with 164 six-year-old kindergarten students who participated in the study for 145 days. The study had pre-and post-interventions. The interventions were: A mindful movement, a movement for its own sake, and a controlled condition where students engaged in regular academic activities. The results showed that mindful movement intervention was the most impactful in academic achievement on tests. Following Dinkel’s ideas a push for movement in the classroom is shown effective. An easy way to incorporate this is through experiential learning.

The effects of experiential learning on middle school students’ motivation towards mathematics and science was studied by Weinberg (2011). The main question of the study was to answer the question “To what extent do the mathematics and science summer programs affect students’ motivation toward mathematics and science?” (p.1). The sample consisted of 336 middle level students who attended a mathematics and science summer program in 2008 or 2009. Students took a science and mathematics motivation pre-and posttest. The pretest was given the first day and the posttest was given on the final day. Students participated in a two-week program over the summer. The program gives them exposure to hands on science and mathematics. Greater gains were found in science than in mathematics. It was found that the duration of the programs and the timing of assessments may have contributed to the lack of reported response changes in mathematics. Overall it was found that experiential learning has a positive effect on students’ motivation to achieve.

Yrsri (2018) shows some practical ways to implement project based/ experiential learning into the classroom. The study was done on the effect of problem solving, project-based learning, linguistic

intelligence and critical thinking on students' report writing. Yrsri (2018) explains how project-based learning can be used. He says it should be used in groups, based on challenging problems or questions and be a student centered learning model. Teacher feedback and critical thinking time are critical aspects of this model. In order for this type of learning to be successful, teachers need to give students time to explore on their own and be there for support. The population of this study was 80 students in the English department during the 2017-2018 school year. The data was collected in three ways: linguistic questionnaire, critical thinking test and writing test. The results showed significant improvement for the students who participated in project based and critical thinking activities after the pretest. When taking the post test, their scores went up significantly. It can be daunting to incorporate this type of learning into the classroom. It is truly shown though that it has significant impact on the learners.

Experiential learning and project-based learning are very similar. Through both project-based learning and experiential, students can experience the connection between the lesson and their own lives. This provides more engagement for the students. Carrabba and Farmer (2018) state "By implementing lessons that can increase student autonomy, competence, relatedness, and relevance, educators may be able to increase student engagement and motivation" (p.165). Carrabba and Farmer did a study to compare teaching strategies. Specifically comparing project-based learning and direct instruction. This was done in order to determine which was more significantly connected to middle school student's engagement and motivation to achieve. They asked many questions to guide this study: Is there a significant difference in the intrinsic motivation of middle school students before and after the implementation of project based learning and direct instruction? Is there a significant difference in the engagement of middle school students before and after the implementation of project-based learning and direct instruction? Is there a significant difference in the intrinsic

motivation and engagement of students who were taught with project-based learning compared to direct instruction? This study used a total of 631 students in sixth, seventh and eighth grade from a rural middle school in Tennessee. Both male and female students from a variety of ethnic groups were included. The classes were taught by two science teachers from each grade, five female and one male teacher. Each teacher taught four separate classes.

The research from this study indicated that motivation and engagement levels of students were higher with project-based learning than with direct instruction. There were significant differences in the mean levels of engagement for project-based learning instruction. This research confirms findings that engaging students and connecting their experiences to real world experiences work for academic's success.

Inquiry based learning requires students to discover or construct knowledge through relevant activities and personal investigations, similar to project-based learning and experiential learning (Johnson & Cuevas, 2016). Traditional instruction may not optimally enhance student learning because students are not as engaged as they are during these hands on learning styles. Lack of motivation came with traditional learning activities, whereas hands on learning has been proven to show more engagement. Johnson and Cuevas (2016) did a study to examine the motivational engaging effects of inquiry project-based learning. The study was conducted at a public middle school in north Georgia; a rural, Title 1 school with approximately 1,350 students enrolled in grades sixth, seventh, and eighth. The racial demographics of the students were 56% Hispanic, 35% White, 4% African American, 2% Asian, and 2% two or more races. 69% of the students are eligible for free or reduced meals. Students' motivation was measured by the Motivation for Reading Questionnaire, which was developed by Wigfield and Guthrie (1997) during their own research on children's motivation for reading. Four classes of sixth grade English language arts students took part in this

study. Two of the classes were the control group, which received traditional instruction. The other two classes received the treatment, which consisted of inquiry project-based learning. All classes had the same reading materials and instructional goals. Each unit was nine weeks and had intervention plans.

The findings of this study were interesting; compared to project-based learning (PBL) in science curriculum. Project-based learning had less effect on reading, students enjoyed it more, but it did not have as significant impact as it does in science or math curriculum. This research leaves us with the question: Are certain times project-based learning isn't the best option? Or maybe the way it was done in this study was ineffective? This study is an outlier in its findings. There were some challenges in this study: Out of the 109 students who took the Motivation for Reading Questionnaire, two students transferred out and five students failed to complete either the pre-test or post-test. Another limitation was that students in both groups still required a great deal of explicit instruction in order to learn how to take notes, research, and document findings. The students participating in this study may not have acquired the necessary skills before they were asked to participate. As a result, the findings may not be as accurate. Another limitation was the small sample size provided. The author admits that further research must be done to determine the value of inquiry learning in English. The researchers admit that there must be more to this study because of their findings.

Another study done by Hugerat (2016) showed different findings than Johnson's. The study involved 458 ninth-grade students from two different Arab middle schools in Israel. The question of this study was how perceptions of the classroom climate differ among students who learned science per a project-based learning strategy in comparison with those who learned per a non-project "learnings strategy." Two hundred twenty-three students from one school were taught the project-based learning strategy, whereas 228 students from the other school were taught according to the

more traditional non-project-based learning strategy. The findings of this study suggest classroom climate perceptions from students significantly go up for students who are in a project-based learning setting. Students also performed better and had more positive attitudes in this setting of learning.

The Glossary of Education Reform (2016) defines student engagement as "the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education" (p.1). Many schools deal with disengagement from students; in order for this disengagement to go away and to get students involved, studies done on hands-on, inquiry-based learning have been done. Fifolt and Morgan (2019) did a study on how to help this disengagement lessen in the classroom. The whole purpose of this case study was to explore the principal and teacher experiences with Jones Valley Teaching Farm. This is a nonprofit that uses a hand on education model to teach academic standards via onsite school farms.

The case study took place in Birmingham, Alabama in the Birmingham City School System, which serves 23,320 students in grades K-12. The free/reduced lunch rate among Birmingham City Schools partner schools is 100% based on the Community Eligibility Provision. This study used qualitative methods to collect and analyze data, including semi-structured interviews with principals of partner schools and focus group sessions with classroom teachers. JVTF has four types of school-based hands on learning programs. The four are: Good School Food, after school programs, the teaching farm at Woodlawn High School, and summer programs. All the types of programs offered have students doing hands on learning with inquiry-based instruction. The focus of the study wanted to find out what kind of experiences with Jones Valley Teaching Farm principals and teachers have had at their schools and what outcomes they have seen. They found that students had a number of benefits from this hands-on learning. Principals and teachers suggested that through the GSF program

all students were able to try new food, develop life skills beyond the curriculum, and frequently find a home base (Fifolt & Morgan, 2019) Participants recognized the value of the farm and the experiences it has on students. This is another reason why hands on learning works. It provides students with other opportunities they may not get elsewhere. Because students participated on the farm they gained new skills, understandings and a higher satisfaction with learning.

Project-based learning is one way to get experiential learning into the classroom. Many studies have been done on how project-based learning can benefit students. A study by Hall and Miro (2016) aimed to investigate the implementation of project-based learning activities in four secondary science, technology, engineering, and mathematics (STEM) education settings to examine the impact of inquiry based instructional practices on student learning. The two guiding questions of the study were: What is the occurrence of PBL (Project Based learning) in the four STEM education approaches studied? How do PBL instructional strategies impact student engagement?

These questions were observed at two traditional high schools in an urban school district. Courses were observed during the 2013/2014 school year. This study consisted of direct classroom observations to measure teacher instructional practices and student engagement. The results from this study showed significant differences in their implementation of PBL. Project based learning has been shown to benefit students in their learning.

One problem with this study was the observation of higher-order feedback and use of questioning strategies. It is shown that even in PBL learning settings these things can be improved. Hall and Miro (2016) expand findings and further support additional studies need to be done. They would like to do a mixed-method study, which includes qualitative and quantitative components.

Along with Hall, Ummah, In'am and Azmi (2019) also did a study on project-based learning. The purpose of the study was to describe the implementation of the project-based learning model and

analyzing the student's creativity improvement in the subject of learning media. Ummah et al. (2019) described project-based learning (PBL) as "A way for students to collaborate in conceptual understanding, to apply prior knowledge, and to gain skills" (p. 93). This type of experiential learning works well for K-8 students. This study was done in the third semester of 2016/2017. It took place in the mathematics education department at the university of Muhammadiyah Malang. It brings a full circle to their learning experience. The approach to this study was qualitative research. Implementation of project-based learning was set up and prepared. After students' creative ability was measured. The steps this study took were: (1) initial observation and interview, (2) studying the relevant literature, (3) preparing instruments, (4) implementing project-based learning, (5) addressing basic questions, (6) designing the learning media, (7) discussing the schedule, (8) monitoring, (9) examining the results, (10) evaluation, (11) interview, (12) data reduction, and (13) analyzing the data (Ummah, In'am, & Azmi, 2019).

The results of the study showed an improvement of students' creativity in the project-based learning implementation. It was concluded that project-based learning helps improve students' creativity and thinking. Ummah stated that this type of learning is important for students K-University even though this study was done at the university level. It can help improve learning and creativity.

Finnish schools are known to have high achievement. Finnish schools core curriculum states that the main aim of a learning environment is to support pupils' learning and teachers are advised to use multiple learning environments (Smeds, Jeronen & Kurppa 2015). Research has found the use of learning environments in natural surroundings are important and supportive in the learning of students. Smeds, Peronen and Kurppa (2015) stated:

> A natural environment supports the use of several senses in learning and allows pupils to study subjects in relation to their actual environment, interactions, and culture. Studies of proved farms to be important learning environments for elucidating various topics, from farming and gardening to social issues and sustainable development (p. 382).

A study done by Smeds et al. (2015) aimed to investigate the effects of learning environments on learning and how pupils experience it. The guiding question of the research was: is there a difference in long-term persistence on concept and process level between learning in the classroom and in an authentic learning environment or their synergy? The study was done on 106 eleven-year olds, 55 girls and 51 boys who were fifth-year students from four different primary schools. All participating students were from the same town. The use of these four schools provided diversity in educational culture. A mixed-method study used experiential interventions, interview, pre-learning, post-learning, and delayed tests. This study compared a traditional learning environment and an authentic learning environment on a farm.

The results of this study showed that authentic learning environments in education increased long-term retention of what has been learned and improves understanding. Smeds et al. (2015) explained that if teachers are not how to teach in environments that are best for learning, they will not provide them for their students. Smeds et al. (2015) stated "The better results seen with authentic learning environments may be due in part to the different teaching and learning methods bundled with that learning environment and not solely due to the effect of the authentic learning environment as such" (p. 399). This shows how important teacher learning is in the learning of the students.

Studies have been done about the psychology behind the experiential learning process. Houge Mackenzie, Son and Hollenhorst (2014) explored why this type of learning works through looking at psychology, self-determination theory, flow theory, and neuropsychology to better understand

experiential learning and development. Houge Mackenzie et al. (2014) stated "At its core, ELT (Experiential Learning Theory) claims that learning is a cyclical process of experiencing, reflecting, thinking, and acting that results from the combination of grasping and transforming experience" (p. 76). Because ELT moves in this circle of experiencing, reflecting, thinking and acting it is proven by psychology to be the best way to learn and ingrain content. Experiential learning works well with the structure of our brain. Houge Mackenzie et al. (2014) stated:

> Concrete experiences come through the sensory cortex, reflective observation involves the integrative cortex at the back, creating new abstract concepts occurs in the frontal integrative cortex, and active testing involves the motor brain. Anecdotally, experiential educators know their programs affect interest in learning and that actual learning often occurs (p. 81).

Because EL works with the whole brain, it makes for the most effective experience for students. This knowledge shows why experiential learning theory works best.

Experiential learning success stories. Exploring success stories of experiential learning can help us better understand what works best. Scogin, Kruger, Jekkals and Steinfeldt (2017) did a study to determine the driving factors related to positive and negative student experiences in a middle school experiential learning program. The goal of the study was to see if participation in experiential learning programs affect standardized test achievement compared to traditional instruction. Two research questions were proposed: What factors contribute to and detracted from positive student experiences in the experiential learning program? How did experiential program students' standardized test scores compare to their peers in traditional classes? For this study a total of 197 seventh-grade students during the 2014/2015 school year were examined in a STREAM school. Science, technology, reading, engineering, arts, and mathematics (SRTEAM). This is a project/experiential method of teaching.

The study was done by collecting and analyzing qualitative and quantitative data. Interviews, observations, and test scores were examined to collect data. Findings showed that overall most students viewed the experiential program as motivating. Students made statements such as I like coming to school, because I'm excited about STREAM schools; I look forward to STEAM school more than my other classes. Scogin et al. (2017) discovered that students in the experiential program perceived school as more enjoyable and learned to successfully collaborate as key factor leading to positive experiences for students. The experiential students showed evidence of non-cognitive skill growth and students in the experiential program progressed appropriately on standardized tests and did not differ significantly from their counterparts in traditional classes.

A study done by Koparan and Guven (2014) was aimed to study the effect of project-based learning on eighth grade students' statistical literacy levels. To test this, two groups were developed. One group was taught with traditional methods and the other was taught using project-based learning. The study was conducted during the 2010/2011 academic year on 60 eighth grade mathematic students in Turkey. Student performance and item difficulties were measured and placed on the same scale. Each group in the experimental group made a presentation about 15-20 minutes long. The control group listened to a prepared lecture by the teacher. The results of this study revealed that the project-based learning increased students' statistical literacy levels in the intervention group. Koparan and Guven (2014) stated:

> The results of the study, project-based learning is more effective than traditional teaching methods in the teaching of statics revealed. After the experiment, it was found that the project-based learning to promote cooperative working of the students in primary school using student centered principle was efficient and effective (p. 155).

Overall this study showed positive results for project-based learning.

In 2016 there was a study done on the impacts of school gardening programs. This study by Duncan, Collins, Fuhrman, Knauft and Berle (2016). The main purpose of this study was to determine if garden cultivation had a positive impact on urban middle school youth. This is an example of experiential learning. The experience of doing (maintaining, harvesting, and cooking) was a hands-on experience these students were able to participate in. A quantitative questionnaire was used to measure the outcomes. This study used the social cognitive theory as its basis. Duncan et al. (2016) stated:

Experiential learning is applicable to middle school education as students are at an age where curiosity and experiential learning activities are greatly appeal to them. School garden curriculum offers a cadre of opportunities for students to walk through each step of an experiential learning process (p. 177). Duncan et al. (2016) gave examples of how experiential learning can be seen in the garden curriculum. Concrete experience, reflective observation, abstract conceptualization, and active experimentation can all be seen.

This study was done in an urban setting. Approximately 53 teachers worked at the school and 680 students in grades six through eight were enrolled during the study. Sixty-six percent of students enrolled qualified for free or reduced meals at school. The research team developed an survey to measure their research. The survey was concise and one-page front and back. A Likert scale was utilized as a response method to statements (strongly disagree, disagree, neutral, agree, and strongly agree). Overall the data revealed several positive and encouraging impacts regarding this sample. Positive outcomes across the board were revealed. Students generally enjoyed this type of learning. This explained why students try harder in experiential learning. Experiential learning received good outcomes as well as engagement from students.

An study done in 2017 worked on how students could learn physics through project-based learning games. This study was done by Baran, Maskan and Yasar (2018). The aim of Baran et al. study was to examine the impact of project-based learning games on students' physics achievement. Baran et al. (2018) stated:

> That most students perceive physics as a difficult subject and experience significant problems in transforming physics-related concepts into concrete understand of the subject. The question remains: Why is it that, although they encounter physics related concepts in act so frequently in their daily lives (p. 221).

His goal was to have students understand and do physics in the classroom through daily experiences.

The study was conducted with 34 students enrolled in the ninth grade technical and industrial Vocational High School in Turkey. In this study, 21 students were assigned to the experimental group, while 13 were in the control group. Students' data was collected using a 17-item Newton's Law of Motion Concept Achievement Test, a five-item open-ended questionnaire, and a 16–item self-evaluation form. The study lasted for five weeks. Throughout the applications, the physics teacher taught the course to the experimental group using activities involving games with the project based learning method while processing the control group students according to traditional methods. It was found that the students in the experimental group indicated they had enjoyed the assignments more. These students thought this method should be applied in all physics classes. It affected their attitudes and they were more motivated. This study pointed to giving students real world experiences with choice. If a student is interested in something, they are going to try harder to learn. By providing them with opportunities to do what they like to do and still learn, they will be far more successful.

A study by Koparan and Guven (2014) aimed to see the effect of project-based learning on the literacy levels of eighth grade students. In the control group, students were taught with traditional

methods and in the experimental group students were taught using project-based learning. This study was completed during the 2011/2012 academic year. The group consisted of 70 eighth graders, typically 14-year olds. 35 of these students were in the control group and 35 were in the experimental. A performance test was developed to measure the students' literacy levels.

Students in the experimental group were placed in groups of three and given four weeks to complete projects. Each group drew up a report and submitted it to the teacher. The projects the students came up with were student-defined and authentic in that the students selected their own variables. Some examples of project students chose were the average monthly income and expenses of a family, students' success in math class, and waste in the environment etc. Looking at results compared between the experimental and control group, it is clear that project based learning worked because…. The pre-test of the control groups mean was 42.1 and post-test 53.6. The pretest of the experimental group was 34.8 and the post test was 79.2. There was a significant increase in the experimental groups scores. Not only did students score higher but they also said they preferred to learn in the project-based learning group. Koparan and Guven (2014) stated "In particular, we think it is important our students approach questions from multiple perspectives. By teaching our students in this fashion we believe we are providing them the tools necessary to develop statistical literacy and competency" (p. 155).

Project-based learning has proved to have a positive impact on students' attitudes, major choices, and career aspirations in STEM. Beier, Kim, Saterbak, Leautaud, Bishnoi and Gilberto (2019) did a study focusing on the effects of project based learning on attitudes and career choices. Beier et al. (2019) stated "Although there is relatively little research directly assessing the effects of PBL, the studies that have been conducted suggest that PBL approaches positively affect student performance and retention across elementary, secondary and postsecondary levels" (p. 1). The study

was conducted at a small private southern university in the United States. Students were sampled from the fall 2014 and fall 2015 academic semesters. Overall, 492 students were involved: 222 females and 270 males. An electronic survey began the study to see students' attitude levels towards STEM based careers and topics. Students were to engage in at least one project-based course. At the end of the study, students participated in a survey. The survey showed that PBL approaches increased the attitude of students and their interest in career choices. Students' self-efficacy and perceptions of STEM classes was increased.

Project based learning is the leading strategy used by most of the top educational systems in the world (Rubrica, 2018). It is often shown to be one of the best ways to learn for students in elementary and secondary school. Rubrica (2018) examined the effect of project based learning using understanding by design framework in improving the academic achievement and attitudes of sixth grade students in science class. In this study, sixth graders from Sta. Quiteria Elementary school in Caloocan City were studied. This school holds a total of 3,712 students and 95 teachers. The study took place during the 2017/2018 academic year.

During this study, Group A was taught through project based learning and Group B was taught through a more traditional teaching. Pre-tests and post-tests were given to both groups to find out the statistical difference in achievement. It was found that there were statistical differences between the mean academic achievement scores. It was proven through the information found that PBL creates higher post-test scores. The positive impact was seen through student scores, interviews, and response. Rubrica (2018) suggested that the next step would be to test in other subjects besides science.

A one-week study investigated the effects of an intensive one-week inquiry-based science and technology program for middle school female students. The main purpose was to increase female

students' interest in science and science-related careers. Kim (2016) stated "Existing research on inquiry-based instruction tends to highlight that it is a starting point for personal construction of meaning that can lead to higher achievement in all students" (p. 175). Therefore, it is important to get girls started right away experiencing science. The research questions of this study were: How does guided, inquiry-based teaching using the set of science and engineering practices affect female students' attitudes about science and science-related careers? How does guided, inquiry-based teaching using the set of science and engineering practices affect female students' content knowledge in the selected science topics covered in the program? The study took place over a week-long summer program at Midwestern University. One hundred and twenty-three females who were entering eighth grade participated. Pre-tests and post-tests were given to assess changes in attitudes toward science and content knowledge of science. The surveys had multiple-choice questions, written assignments, and interviews to collect data.

The following themes emerged after reviewing the finding from this study: Increased middle school-aged girls' interests in science, attitude changes about science, inquiry approach made learning science fun and exciting .The study revealed that this program increased participants' positive attitudes toward science, science-related careers and content knowledge of selected science concepts. The main limitation within this study was that the study utilized a small sample size. These girls were already enrolled in this science program. Future research should utilize a larger and random sample size to get more reliable data.

A study using simulations by Falloon (2019) applied revisions of Kolb's Experiential Learning Theoretical Model to determine if age-indicated science simulations were effective for teaching five year olds simple circuit building procedures and electricity concepts. It was also explored if their engagement with the simulations provided worthwhile opportunities to exercise

higher order capabilities such as reflective thinking and abstraction. The guiding research questions of this study were: Can science simulations help young students learn simple circuit concepts, construction procedures, and the function of circuit components? Do science simulations provide opportunities for young students to exercise higher order capabilities, such as reflective thinking and abstract conceptualism? Data was collected over a four week-period in a New Zealand school. The participants were thirty-eight five year olds (20 girls and 18 boys). Most students had been at school for about three months. The approach was a series of "can you" challenges. The tasks were introduced by the teachers and then students were put into pairs to accomplish the task. Data indicated the simulations were effective for supporting students' basic procedural knowledge about constructing operating circuits of different designs and for developing transferred functional understanding of different circuit components. One problem with this study was that some of the circuits introduced the students to misconceptions about circuits. This had a slight effect on the student's overall data. This data showed that experiential learning has a positive impact on even the youngest students.

The main purpose of the study by James and Williams (2017) is to examine the benefits of engaging youth in memorably relevant learning. This is done by immersing them in physical activity, field-based education and providing them with authentic contextualized opportunities to extend classroom-based learning. The guiding question of this research is: Is experiential outdoor education for middle school-aged students a valuable use of school time? Fifty-seven seventh and eighth grade students attending school in Rocky Mountain West. This school emphasizes outdoor education. As the students increase grade levels the outdoor education experiences get harder. These students participated in a two-day, one-night camp of experiential outdoor education. After the students participated in a field experience, four 100-minute class periods were devoted to making sense of the

data collected in the field. Students made connections between their in-class learning and their experiences outside.

The data collection piece of this study involved close participant observation and detailed note taking from researchers during the outdoor education experience. There were individual interviews done after the field experience. Some questions the students answered were: Was the camp a worthwhile experience for you? Why? What camp activities were valuable? Why? What camp activities were not valuable? Why? What would you do to change this camp to make it a more valuable experience? Some challenges to this study were receiving ideas from students. The researchers knew the students so they may have introduced some bias to the results. Another limitation involved the age of the students participating. Some students stated after the research was done that they may have stated the opposite of what they thought was expected of them because they thought they were funny. James and Williams (2017) stated "School-based experiential outdoor education, although often neglected as part of the curriculum in our current era of high-stakes test-based accountability is a necessity" (p.49). Students stated that experience "Provided rich learning" (p.49). Most of the students considered outdoor education to be valuable. Many campers enjoyed their experience; 44 of the 57 seventh and eighth graders stated that the camp was worthwhile. They showed positive relationships towards learning from this experience.

As most of the studies have found, project-based learning is an effective way to teach students. Julia and Antol (2019) went a step further to analyze the long term effects of active learning on students' academic success. The main questions of this study were: Are the students motivated? Is the students' motivation maintained during the STEM course? Does the motivation depend on the gender of the participants? Does the motivation depend on the grade of the participants?

The study was done in a school in a small city. The study was carried out with the sixth and seventh grade class. Of the students 26 were in the sixth grade class (14 boys and 12 girls) and 22 students in the seventh grade class (11 boys and 11 girls). Students took the Instructional Materials Motivation Survey to quantify their motivation. This survey focused to measure: Attention, relevance, confidence and satisfaction. Students worked in groups of three collaborating and completing a project. Julia and Antoli (2019) found learning in a team of three to be preferable by students because it enabled their self-expression and active participation while still allowing the benefits of team collaboration. After students' participated in the project they took the survey again. It was found that the level of motivation varied only slightly between pre-and post-tests. It was found that female participants showed a higher motivation level than males. Furthermore, the student found that students were generally more motivated by STEM courses. Students who participated continued to show motivation throughout the school year.

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

Experiential learning has continuously shown to be successful with K-8 students. Experiential learning is a way of learning that takes education deeper and makes it more concrete. Experiential learning provides students with real world tasks in the classroom (Elliott, 2016, p. 5). “Real world tasks” is a common phrase used amongst researchers when doing studies on experiential learning. Farber and Bishop (2018) suggested that experiential learning is a hands on way for students to explore and connect school to the outside world. Yardley et al. (2012) used the words “real life experience” (p. 161). Experiential learning as a whole wants to get students excited about learning by providing real world experiences. Kolb (1984) stated “Experiential Learning is an active pedagogy emphasizing concrete experience and abstract conceptualization”. Concrete experience is something that experiential learning can provide for students. When combine concrete and real life experiences are combined, a successful way of teaching has been shown.

Experiential Learning has been shown to get students excited about learning, which causes them to want to put more effort forth. Mutmainah et al. (2019) stated “Experiential learning stimulates the students in their activities to think, explore, ask, make decisions, and apply what they have learned” (p. 58). Giving students this type of control over their learning causes them to get more excited and have fun. Being student centered is something to have been found successful in student understanding (Skelton et al., 2018). Having students be active is something most of these researchers have in common in their findings. The more active students are, the more they enjoy what they are doing. Cheng and Tsai (2019) had students engage in an active summer camp. Their results were students who were more engaged and had high test scores. A study by Probhamkaran (2017) found that human experience provided the most learning for students K-8. Physical activity was explored by

Dinkel et al. (2017). They found that students improved in academics, anxiety, depression, and social skills when involved in active learning. A study done in a kindergarten classroom studied how movement affects learning. Shoval et al. (2018) stated:

> Typically, the academic learning environment is separated from the environment in which children are free to move about, by allocating a different time and place for motor activities and for academic activities. This is to ensure optimal conditions for academic learning, which is considered the central component of learning (p.1).

Middle school students in a study for a science summer camp improved scores by being more involved and active in their learning Weinberg (2011). Being active during experiential learning is a common way shown why experiential learning works.

Some practical ways to implement project based learning is giving students more time to explore. Yrsri (2018) explained that problem based learning and giving students time to explore, results in better understanding of students. Carrabba and Farmer (2018) stated "By implementing lessons that can increase student autonomy, competence, relatedness, and relevance...increase student engagement and motivation" (p.165). As students are engaged through exploring, their learning increases (Johnson & Cuevas, 2016). Providing exploration time provides engagement and positive attitudes towards learning (Hugerat, 2016). Fifolt and Morgan (2019) did a study on how to help this disengagement go away in the classroom. This study used a farm for student exploration. It was found that students who engaged in working on the farm had a positive outlook on learning. Hall and Miro (2016) found that using project based learning practices has shown students to benefit and understand more of the content. Giving students the creativity to explore in math was shown to help students academics increase (Ummah et al., 2019). By adding in this exploration and creativity, it was shown that students were more successful in class. Finnish schools give students many opportunities

to explore in natural environments (Smeds et al., 2015). Smeds, Peronen and Kurppa (2015) stated "A natural environment supports the use of several senses in learning and allows pupils to study subjects in relation to their actual environment, interactions, and culture" (p. 382). Houge Mackenzie et al. (2014) stated "Concrete experiences come through the sensory cortex" (p. 81). An easy way to provide this is through exploration. Exploration is one practical way of implementing experiential learning into the classroom.

Many success stories found in research about experiential learning have "enjoyment" as a common theme. Many students show that they enjoy learning when experiential learning is used. Scogin et al. (2017) researched, what factors contributed to positive student experiences? They found that classes that used experiential learning was a positive for students because it was not like other classes and it got them excited to learn. Finding a way for students to be excited to come to class is a key factor in learning. Koparan and Guven (2014) stated "The results of the study, project-based learning is more effective than traditional teaching methods in the teaching of statics revealed… project-based learning to promote cooperative working..." (p. 155). Results of this study showed that students were more successful because they were more involved in their learning. Duncan et al. (2016) researched a school gardening program. Students had time to partake in a hands on gardening program at school with topics related to science. Student success was found to go up in academics. Most students stated that they found it exciting and fun to participate in this hands on gardening program. Baran et al. (2018) involved games into teaching to see how students succeed in physics class. It was found that the students in the experimental group indicated they enjoyed the assignment more. Attitudes have been shown to improve towards subjects that participate in experiential learning. Beier et al. (2019) had students take a survey and it was found that PBL approaches increased the

attitude of students and their interest in career choices. Project based learning continues to be one of the leading strategies used in the world because of its positive outcomes (Rubrica, 2018).

Much research in different subject areas showed that experiential learning can be used in many different ages and genders. Kim (2016) studied science and technology with experiential learning for female students. An increase in middle aged school girls interest in science was found after the teaching of science with experiential learning. Falloon (2019) studied if five year olds using experiential learning would be successful. It showed though that experiential learning has a positive impact on even the youngest students. James and Williams (2017) engaged middle level students in physical activity during the class period to show that movement helps students learning. Thus showing that experiential learning helps students' learning because of the movement it provides. James and Williams (2017) showed success in middle level boys and girls. Julia and Antol (2019) did research in a small town with 26 seventh and eighth graders. It was found that female participants showed a higher motivation level than males. Furthermore, the student found that students were generally more motivated by STEM courses. Experiential learning works for many ages and genders.

Limitations of the Research

To locate the literature for this thesis, searches of ERIC, EBSCO, and Academic Search Premier were conducted for publications from 1990-2019. This list was narrowed by only reviewing published empirical studies from peer-reviewed journals that focused on experiential learning, inquiry-based learning, hands on learning, field study learning, project-based learning, science and middle school. The key words that were used in these searches included "experiential learning in the classroom," "hands on experiences in the science classroom," "project-based learnings effect on student success," "middle school students and inquiry based learning," and "field studies for students."

Research done specifically on the experiential learning theory is limited. There are many different types of hands on learning theories used in classrooms today. It was difficult to track down specific articles about experiential learning theory which is why the words inquiry-based, hands on, field study, project-based, science and middle school were used in finding research. These types of learning are very similar to experiential learning theory but do not always use the four-stage cycle provided by Kolb. The amount of research done specifically on the cycle proposed by Kolb is limited. In order to find research done exclusively with Kolb's theory specific wording and searching was done. Many articles were read to see the cycle used in the study. If it was a full Kolb based study or a hybrid version.

Research was limited down to K-8. Higher education and 9-12 were excluded from research because of the relevice of age. K-8 age of learners are very different from higher education and high school aged learners. Higher education and high school have a lot of research done on experiential learning. For this study, it is excluded because of how different the type of learners is in that age group compared to K-8.

Implications for Future Research

Gaps in the research are found in a few places. The first is research done in grades first through fourth. Much research is done in middle school, higher education and preschool settings. Most research does not aim to see how first-fourth graders participate in experiential learning. Also much research is done on adults and college students vs. elementary. A gap is found in time for this research. Research done with a group over a short period of time is easy to find. Research done over years is hard to find. Research should be done studying a control group and an experimental group over several years. Students should be followed through at least three grades to see how experiential

learning effects on group over the other. Short term research has been done, long term is not as common.

More holes can be found in diversity of studies. Many studies are done in low-income communities. Not many studies are done in suburban middle class areas. Seeing how experiential learning effects all communities is were further research is needed. Understand how experiential learning effects a wide range of gender and races is needed. Some has been done in this area but for it to be relabel and alien with other studies more needs to be done. One study was able to be found about gender related to experiential learning. By providing more studies related to gender and this type of learning we will be able to best understand how to implement it.

As Experiential Learning Theory has been around for many years it is still being implemented into classrooms. As we continue to learn more about how experiential learning is a positive impact in school on learning the more research that will be found and able to have. Because not many teachers fully implement this type of learning into their classroom everyday it is difficult to find valid research to analyze.

Implications for Professional Application

Much can be learned from this research. Teachers should find this research helpful on how to implement experiential learning into the classroom. Research on hands on experiences has shown positive in student learning. By providing real life experiences in the classroom students education has been shown to be enhanced. Students develop a more concrete knowledge from learning by connecting to the real world. They also take these experiences outside the classroom with them into their daily lives. Teachers should create more project based learning activities using Kolb's cycle in the classroom to help better students learning.

Educators should use this research to enhance our work with students. We should create as many learning experiences were students are exploring and thinking for themselves as we can. It has been shown to work in many different subject areas, as educators we are challenged to bring it into any subject. Some subjects are more challenging than other to use experiential learning theory, but from this research we can all bring it into the classroom no matter the subject or age we teach. Research has shown that this type of learning can help in any area.

In order to provide these concrete experiences each teacher needs to commit to the work of putting in effort to bring experiential learning to the classroom. Bringing this type of learning into the classroom can be a lot of extra work on the teachers' to get started. More effort in the beginning but it will save the teacher time in remediation because many students will already understand curriculum better. By providing experience of topics students can create a better understanding and make more connections with the curriculum.

Many educators don't get this extra time and money in the classroom to come up with these new ideas. This is why it can be a challenge to get experiential learning into the classroom. As educators we need to keep informing staff, admin, teachers, students and parents about how important this type of learning is. The more we can show that student's knowledge is enhanced by this type of learning the more support we will receive. Many people don't understand this type of learning. By providing information on why we are teaching students in this way we can help everyone better understand why this type of learning is needed in the classroom.

Conclusion

Experiential learning can benefit all type of learners in all classroom settings. This type of learning can be used from preschool to adult, from science to reading. Experiential learning has been shown to enhance student learning and provide positive connections to real life experiences. Students

who are taught through experiential learning have shown to have a more positive outlook on certain subjects and careers related to them. Students who are taught through experiential learning have been shown to be more successful and have a higher drive to succeed. Professionals are challenged to bring this type of learning into their classrooms.

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