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Project Based Learning Instructional Design and the Benefits If Brings to Modern Classrooms Specifically in Special Education

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PROJECT BASED LEARNING INSTRUCTIONAL DESIGN AND THE BENEFITS IT BRINGS TO MODERN CLASSROOMS SPECIFICALLY IN SPECIAL EDUCATION

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Abstract

This thesis explores and defines what project based learning instruction is, and focuses on the impact it has on both traditional and special education classroom environments. The research examines the issues that schools face in the 21st Century using both traditional instructional design and project based learning, while shedding light on the benefits of the project based learning instructional design. This thesis examines a range student's ages, cultures, socio-economic status, special education needs/abilities, and motivation levels. When implemented, project based learning instruction is able to enhance the social, emotional, and academic achievement capabilities of the students who receive it as a part of their classroom experience.

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CHAPTER I: INTRODUCTION

Current Challenges Facing Schools

Public schools are a free tax-supported function of government to educate at the primary and secondary levels, but public schools are functional, in part, by partnering with their community and having students be college and career ready. Schools are often divided between ruling of laws and what the expectation is for a student to be college and career ready. Because of the divide and pressure from government metrics such as standardized testing, benchmarks, assessing, and funding, public schools often fail to realize their potential in the development of increased capacity for enhanced teaching and learning by using their community and to provide a deeper knowledge of active exploration of real world challenges and problems.

Current challenges schools face structurally are classroom sizes, poverty, family factors, technology, bullying, student attitudes and behaviors, No Child Left Behind (NCLB), parent involvement, student and teacher health, and funding (Chen, 2017). These challenges arise, in part, due to the fact that these problems will change and vary considerably, depending on who is classifying them or identifying them, i.e. students, parents, educators, or lawmakers. The only thing the previously listed groups have in common is they don't agree on how to target the underlying problems that keep learning from occurring.

A study from Class Size Matters Organization, found classes of 15-17 student in grades k-3 provided both long and short-term benefits to both the students and the teachers in those classrooms. Minority students, lower socio-economic students, and male students appeared to benefit from smaller classroom sizes the most (Mathis,

William, 2016). Yet, most classrooms sizes are 25+ students. This begs the question of how to do we face this issue to ensure learning is happening for every student with increasing class sizes?

According to the U.S. Census Bureau and Department of Health and Human Services the published the poverty guideline for 2018 as an annual income of $25,100 or lower for a family of 4 (Federal Register, 2017, p.2643). This translates to more than one million children nationwide who have been added to the poverty rolls in public schools for just the academic year of 2017/18. Nearly 20% of children across the nation qualify as poor. Students who live in poverty or lower socioeconomic status tend to have the highest dropout rates. Poverty also plays a role in family factors. Many parents have 2 jobs or both parents work, leaving little to no academic support in the home. Schools see family factors and poverty first-hand. Schools try to provide basic essentials to all students, however, schools see that there is simply not enough to go around. Teaching poor or students in poverty is a challenge. "Change the experience, and you change the brain," says San Diego-based educator Eric Jensen, author of the book "*Enriching the Brain: How to Maximize Every Learner's Potential*," who has developed a teachers' training program, "Teaching with Poverty in Mind." Eric Jenson recommends compelling stories, theater arts, fine motor tasks and cooperative learning will build better attention skills to keep students in engaged and decrease dropout rates (Jensen, 2008). However, schools are tasked with so many other obligations such as providing basic needs, it is almost impossible to change the experience with current instructional strategies.

Many teachers do not have the skills, training, or time to compete with students' personal technological devices. We know it is difficult to keep students interest and attention when teaching new concepts and the use of technology can aid in keeping students engaged. While technology is great in the classrooms, The National Education Association notes that a student's love of technology and the combination of less tech-savvy teachers, technology often distracts pupils from schoolwork and academic learning. Furthermore, technology has provided even more methods to bully students. Cyberbullying has become an issue in many schools. A study published in the Journal of Adolescence looked at the association among cyberbullying and suicide in high school. The results indicated the rise of cyberbullying has a direct correlation to suicide and suicide attempts amounts high school students (Bauman, Toomey, & Walker, 2013).

Student attitudes, behaviors, and decreasing parent involvement continue to create a challenge schools. The National Center for Education conducted research on problems teachers face in schools and the results showed an increase of apathy, tardiness, disrespect, absenteeism, and poverty, as a concern for educators in schools. Households face both parents working and with less time to help with support on academics at home. Parents working also decreases involvement with students whether it be a time constraint, fatigue, or even childcare for other children in the home. Child health contributes to apathy, tardiness, and absenteeism. Poor eating is derived from poverty, parents working and not being able to cook healthy meals, or not home to help students get on the bus or make sure they sleep enough. Students not being able to be in optimal health is very difficult and schools are expected to teach eating habits,

healthy life styles, and provide nutritious meals on their own as well as make sure academics standards are being withheld.

Lastly, legal issues and funding have increased problems for schools. The focus in education, in lieu of No Child Left Behind policies, are on the testing process, which equates to the amount of funding a school receives. Funding and teacher evaluations are directly affected by the policies of the No Child Left Behind Act because the lower performing a school is, the less funding received. The less funding equates to lowered caliber of teachers hired. Some may argue that funding doesn't correct problems schools are facing and that there too many challenges to overcome. Lawmakers, educators, students, and parents, need to come together and begin to find a solutions and teaching strategies that will benefit all students in public schools.

History of Project Based Learning and Traditional Instructional Practices

John Dewey is a major figure in shaping the field of educational psychology. He was a 20th century philosopher who established the first major educations psychology laboratory in the United States. Dewey presented students as active learners. He believed students did not learn sitting passively in their seats and rather that they learn best by doing. He also argued that active experiences prepare students to be lifelong learners and be able to problem solve and adapt to an ever changing world as they grow. Lastly Dewey believed that all children deserve to have a fair and appropriate education (Santrock, 2011). Before educational psychology became an official branch of teaching and learning, Confucius and Aristotle were early proponents of learning by doing. Socrates modeled how to learn through questioning, inquiry, and critical thinking

-- all strategies that remain very relevant in today's project based learning classrooms (Boss, 2011).

At an early broad level John Dewey's philosophies of education represented the instructional strategy of the constructivist approach. The constructivist approach is the earliest title for the current definition of project based learning. The approach is a learner-centered approach that emphasizes the importance of individuals actively constructing their knowledge and understanding with guidance from the teacher. Teaches do not pour information into students minds instead encouraging them to explore their world, discover knowledge, reflect, and thing critically with careful monitoring and meaningful guidance from the teacher (Santrock, 2011).

Mid-21st century a developmental psychologist named Piaget, introduced a theory that explains the process in which children use to construct their knowledge of the world. His theory supports the constructivist approach. Piaget spent time carefully observing children and showed inventive ways how to discover how children act on and adapt to their work. Piaget's theory is currently used in the present field of children's cognitive development using concepts such as schemas, assimilation and accommodation, object permanence, egocentrism, conservation, and hypothetical-deductive reasoning. Piaget contributed to the vision of children are active, constructive thinkers, who learn best by doing.

Another instructional strategies introduced is the direct instruction approach. This is the more common traditional approach used in classrooms today. Direct instruction approach is defined as a structured, teacher-centered approach characterized by teacher direction and control, high teacher expectations for students'

progress, maximum time spent by students on academic tasks, and efforts by the teacher to keep negative affect to a minimum (Santrock, 2011).

A late 20th century American psychologist named E.L. Thorndike, helped pave the way for direct instruction, and like John Dewey, a pioneer of educational psychology. Thorndike argued that one of schooling's most important tasks is to focus on children's reasoning skills, and use exact scientific studies of teaching and learning. He promoted the idea that education psychology must have a scientific base and should focus strongly on measurement (Santrock, 2011). Direct instruction was not only derived from measurement and scientific studies, it was also proven to help in the workplace. Thorndike introduced exams and testing to employees to set standards in a work place. Measurement has turned into a way of evaluating and setting standards, thus, bringing us to current day practices of standardized testing and achievement.

Current Teaching Strategy Used

Today, Project Based Learning is viewed as a model for classroom activity that shifts away from teacher-centered instruction and emphasizes student-centered projects. The current Project Based Learning (PBL) model helps make learning relevant to students by creating connections to life outside the classroom and by addressing real world issues and using community to bridge the connections. In the classroom, PBL gives teachers an opportunity to build relationships with students by acting as their coach, and intentional facilitator that gives guidance. In the school and in their later lives post school, PBL allows teachers the chance to build relationships with students and with those in the larger community. Student projects serve as artifacts shared with other teachers, parents, and lawmakers as an assessment. This method is used less for core

curriculum such as reading and math and uses more for science and life skills. However, to be true to the Gold Standard of Project Based Instruction there needs to be an artifact that serves as a summative assessment.

Traditional or Teacher-Centered learning is currently viewed as the teacher is the leader. Students are sponges or empty vessels waiting to learn and absorb information. It is the teacher's responsibility to have high subject matter competence and ability to transfer he/she's competence into the minds of students. Students are often evaluated using traditions worksheets or end of unity projects. This method is useful by keeping classrooms orderly because the teacher has control of the schedule and the way topics are delivered.

Thesis Statement

What are the benefits of Project Based Learning? Effective teaching is becoming increasingly more difficult accomplish amongst the increased issues of parents, students, and lawmakers. Teaching is complex and individual variation is even tougher. However, teachers must keep up with how to motivate students and how to communicate and work effectively with those of varying skill levels, culturally diverse backgrounds, and differentiating socio-economic backgrounds. This thesis will explore the topic of project based learning approach can help the underlying problems that keep students from learning today as compared to the traditional approach used in most public schools. As with everything related to people and education there are a variety of approaches under the project based learning title and what the design is defined as; this will be discussed in chapter II. Data found in Chapter II will recommend asking the same questions as traditional curriculum are designed by such as "do activities support

varied learning styles?", "are learning tasks authentic?", "Do key questions drive the project or activity?", and "How is learning assessed?". By using the same recommended curriculum driving questions for traditional learning strategies, project based learning strategies will use a different implementation path of giving students that knowledge with better life-long learning results. Furthermore, proving students will have higher social emotional learning and mindfulness.

Definition of Terms

Project Based Learning- is the ongoing act of learning about different subjects simultaneously. This is achieved by guiding students to identify, through research, a real-world problem (local to global) developing its solution using evidence to support the claim, and presenting the solution through a multimedia approach based in a set of 21st-century tools.

Emotional Behavioral Disorder – a condition exhibiting one or more specific emotional and/or behavioral difficulties over a long period of time and to a marked degree, which adversely affects educational performance. (IDEA)

Evidence based practices – those which have verifiable information supporting the adoption and their continued use.

Intrinsic Motivation- performing an action of behavior because you enjoy the activity itself.

Mindfulness - the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us.

Professional Learning Communities – a group of educators that meets regularly, shares expertise, and works collaboratively to improve teaching skills and the academic performance of students.

Resilience – the ability to bounce back despite adversity.

Social Emotional Learning – developing the ability to recognize one's own emotions as well as others' emotions, and developing skills necessary to communicate those emotional understandings.

Authentic Assessment- the measurement of "intellectual accomplishments that are worthwhile, significant, and meaningful," as contrasted to multiple choice standardized tests. Authentic assessment can be devised by the teacher, or in collaboration with the student by engaging student voice.

Elevator Speech- a brief, one- or two-sentence response you could give someone in the amount of time it takes to go from the first floor to the second floor in an apartment building. I like this visual, and I use it with my students because getting to the point and encapsulating the gist of something is vital in today's speaking- and writing-heavy world.

CHAPTER II: LITERATURE REVIEW

What is Project Based Learning?

Project based learning is often mis-understood as a project at the end of a lesson or a final presentation to demonstrate knowledge learned. Although having an authentic assessment is a part of project based learning model, it is not the whole story. There are many different views of what project based learning is. It is often difficult to explain because it has so many facets in order to actually work. An elevator speech was composed by edutopia.org, a George Lucas Educational Foundation research group, and was stated, “PBL is the act of learning through identifying a real world problem and developing its solution. Kids show what they learn as they journey through the unit, not just at the end” (Wolpert-Gawron, 2015). The elevator speech is a quick and accurate description, however we as educators know it is not just “that”. Project Based Learning is the ongoing act of learning about all subjects simultaneously. Students are guided by staff to identify, through research, a real-world problem, preferably local but can be global, developing its solution using evidence from their research to support their claim, and presenting the solution through a multimedia approach in a set of current century tools (Wolpert-Gawron, 2015).

Project based learning is a method in which students are able to demonstrate what they learn, not at the end of a lesson, rather as they journey through the unit, and interrelate with the lessons, use collaboration, and promote intrinsic motivation and critical thinking skills as they assess themselves and each other.

Depending on the Unit or how the school implements PBL, the length of learning will have different time frames. Some may be a week, while others may be a whole

semester. Some schools have chosen to use project based learning to intertwine both core and elective classes to achieve a whole approach to a topic. As a result to students solving real-world problems and answering complex questions, they develop deep content knowledge as well as critical thinking, creativity, and communication skills.

Designing effective projects takes time and a lot of thought. Projects need to be intentional and structured, yet able to let the student wonder and be creative. Created by the Buck Institute for Education, there is a Gold Standard for PBL. They are the *Essential Project Element Designs*. The Buck Institute for Education states that there are eight *essential project design elements* that outline what is necessary for success project that maximizes student learning and engagement (Larmer, Mergendoller, & Boss, 2015). They are:

1. Key knowledge, understanding, and success skills
2. Challenging problem or question
3. Sustained inquiry
4. Authenticity
5. Student voice and choice
6. Reflection
7. Critique and revision
8. Public product

A challenging problem or question can be concrete or abstract. Having an engaging problem or question for students makes learning more meaningful and interesting. When comprising a question or problem the question must be challenging but not intimidating. A comparison would be to facilitate an open-ended driving question or

problem, much like a thesis focus for an essay. These questions and problems often start with a, “How” or “Should” statement.

The Inquiry process should take time. A student should not be able to simply “look up” the answer online or in a book. The Gold Standard states that a project should be no shorter than a couple days and no longer than a semester. Inquiry is iterative; when confronted with a challenging problem or question, students ask questions, find resources to help answer them, then ask deeper questions — and the process repeats until a satisfactory solution or answer is developed (Larmer, Mergendoller, & Boss, 2015).

Lauren Bialystok, an educational researcher who published her article about authenticity in the Oxford Research Encyclopedia of Education, states that the pursuit of authenticity in education rests on various philosophical assumptions about the nature of truth, reality, ethics, and the aim of education. The Buck Institute of Education lists several ways a project can be authentic. The project can have an authentic context. Contextual problems are those faced by people in the world outside of school. It can involve real-world process, tasks and tools, and quality standards. This is when students plan an experimental investigation or use software and other technology. Another type of project is when it has a real impact. This is when a student addresses a need in their school or community. Lastly, projects can have personal authenticity. This is when the learning speaks to the individual or groups concerns, interests, cultures, identities, and issues in their lives.

Having student voice and student choice is the ability for those involved to make some decisions about the project, including how the work and what they create. Having

a voice and choice in the project gives the student a sense of ownership in their learning. The overall input and control over projects is determined by the level of the student.

As you may recall from earlier, John Dewey an educational philosopher, wrote, “We do not learn from the experience. We learn from reflecting on the experience.” Reflection on a project will take the form of an assessment and also occur informally through class discussion. Reflection helps students understand content knowledge and solidify what they have learned and think about real world application.

Critique and revision is an important part of the learning process as it gives students feedback on what they did right, and how to improve their process or product. Students at this point in the process, may need to be taught how to give and receive constructive feedback. Critique and revision is the process of a formative assessment. The assessment is not only teachers giving feedback to students, but students evaluating the results of their learning.

The last component of the gold standard for project based learning is having a public product. Students make their own project work public by explaining, displaying, and/or presenting it to people beyond the classroom (Larmer, Mergendoller, & Boss, 2015). Having a public display raises the stakes for quality work, can provide a healthy dose of anxiety, create a learning community, and shows the parents that the school teaches more than just to a test.

The Need for Project Based Learning

As stated before there are many issues to overcome modern public schools. Project based learning can address most of the issues expressed in the intro of this thesis.

Classroom size- PBL is becoming less in debate about if the method works but rather how to implement and debatable on the cost. One major criticism is about the increased cost of PBL. Facilitators will need professional development, which will be discussed later in the professional learning communities (PLC) section, and they will need supplies. In an overcrowded classroom where a teacher can't possible differentiate a single lesson to reach every student, project based learning can not only help accommodate each student but relieve the need for less facilitators and educational assistants. The average group size for PBL is seven (Albanese, 2010). A huge cost to schools is faculty; a reason why classroom sizes have begun to bust at the seams. A teacher can manage 3-4 groups of 7 and will be more successful as students divide into roles and learn to hold each other accountable. With less staff needed in a room the cost of staff will be reduced without jeopardizing the learning of the student, thus saving money and dealing with circumstances. Another issue with direct instruction is there are not enough computers or media equipment to go around and not enough time to mentor or hone the individual needs each student needs. With a project based learning approach students move at their own pace and each group needing less equipment to work together with, or working at different paces, freeing up equipment. As students monitor their own pace and monitor each other, the teacher has more time

to meet with students for their independent needs as well as help facilitate authentic projects.

Poverty- As discussed previously, students with lower socio-economic status face many challenges outside and inside the classroom. However, there is also a long stemmed culture or belief about students living in poverty or lower income homes in schools. There is a belief that these children do not want to learn, and the belief that teachers desire control of their classroom-in that students should sit in their seats and take in information, and the belief that this demographic of students benefit from lowered expectations (Haberman, 2010). Dr. Martin Haberman was a distinguished professor at the University of Wisconsin-Milwaukee who developed interviewing techniques for identifying teachers and principals who will be successful in working in schools serving students in poverty. He wrote several books, including “The Pedagogy of Poverty”. In his book he concluded that, a pedagogy of poverty, produces a classroom that may, on the surface, appear calm and compliant, but "that seethes with passive resentment that occasionally bubbles into overt resistance. The constant monitoring and control such a schooling requires eventually leads to student disengagement and dropout and to teacher burn out” (Haberman, 2010).

Dr. Haberman described his vision of an alternative pedagogy and good teaching as teaching about issues they regard as relevant, students learn to see big ideas and major concepts, students involve themselves in planning, students connect what they learn in the classroom to the real world, students work to complete open-ended activities that allow for multiple interpretations, students learning to use technology in order to access information, and students learning to reflect on their own lives and how

they have come to believe and feel as they do. His vision is much in line to that of project based learning. PBL can improve student self-efficacy and academic performance. Dr. Jensen also explains the importance of teaching to these visions in the book, “Teaching with Poverty in Mind”. PBL focuses on authentic content, purposes, and presentation evaluations, with specific learning educational goals. Assigning roles within PBL can help students reach goals on their individual education plans (IEP). The pedagogy of poverty focuses on encouraging students to behave appropriately rather than encouraging them to think scientifically. PBL helps students in poverty increase self-efficacy and increase academic performance (Giesige, 2017). Out of five studies that compared PBL learning compared to traditional based instruction in poverty areas, three of the five studies showed better results for those using project based learning and the remaining two show no statistical difference (Chen, Hernandez, & Dong, 2015) (Han, Capraro & Capraro, 2015) (Hiller & Kitsantas, 2014) (Horak & Galluzzo, 2017) (Scogin, Kruger, Jekkals & Steinfeldt, 2017).

Case Study: PBL Impact

Researchers from the university of Michigan and Michigan State University collaborated to perform a large study to show that project based learning in high poverty communities can produce statistically significant gains in social studies and informational reading. The study randomly assigned 48 second-grade teachers working in high poverty areas with low performance, 24 as the experimental group and 24 in the control group. The teachers in the experimental group were given training on project based learning strategies, coaching, and detailed lesson plans for 80 sessions within four project based units. The control group of teachers were to teach their regular

curriculum (to include no PBL involvement). They were given 80 lessons over the course of the year. Teachers in both groups were systematically observed by using pre- and post- standards-aligned measures of both social students and reading. The researchers also use a Likert-scale motivation survey. The participants were 48 second grade teachers, 684 students (289 in control group and 395 in experimental group). The study of the participants was spread across 20 elementary schools in 11 districts. The participants were drawn from a Midwestern state the met the following criteria: (1) 65% of population qualified for free and reduced lunch; (2) below state average performance on exams; (3) located within an hour drive of researches place of residence.

The study had 4 outcome measure data sources: (1) Standards aligned assessment administered 1-1; (2) standards aligned reading assessment administered 1-1; (3) a writing assessment administered to a group with both a persuasive essay and informational essay; (4) a group administered motivational assessment. Students were assessed at the beginning and the end of the school year. Research assistants observed classrooms on an average of 11.208 visits to the experimental classrooms and 5.458 visits to the control classrooms. Other data collected included demographics of students, teacher background, classroom rate of consent, and interviews with experimental group teachers.

The results of the experiment showed associated with higher statistical growth on all measures for the experimental group over the control group. The test of the project based learning was designed to be stringent to not only with respect to research methodology but also with respect to the circumstances in which PBL was enacted. It is

also noteworthy, to show the effect size in the domain is nearly twice what the Institute of Education Sciences What Works Clearing House considers to be “substantively important” (Duke, Halverson, Strachan, Kim, and Konstantopoulos, 2018).

Family Issues-In modern times, schools are often a safe and stable place for students to spend most of their day. Students come to school from diverse families, and lead very hectic, stressful lives. Regardless if the constraints are coming from extra-curricular activities or parents working multiple jobs, the strain of busy lives barely allow for quality family time for children, let alone time to help with homework. Since project based learning focuses on current real life applications, parents can relate more to the authenticity and are more likely to be able to help. Also, the project based learning is done mostly in the class room and facilitated by the teacher and others, so there is less home work to be had, thus alleviating the strain on families at home. The transformation of paper and pencil task to hands-on tasks invites the parent to work with the child and be part of the process rather than the parent having to read a text book with the student. The parent or guardian has more time to cook a healthy meal or make sure the student gets on the bus. Also, parents can be as involved as they want to be, versus trying to learn trigonometry with your child.

Technology- Project based learning and technology are a winning combination. The combination will lead to deeper learning and engagement. No matter your stance on the screen culture, it is a foundational element of the contemporary American childhood. Technology cannot be used as prop but rather as an integrated part of the lesson that is student driven. Students love technology and can be used as a powerful learning tool to make learning meaningful, relevant, rigorous, and aid in building self-

autonomy. When paired with project based learning strategy the learning can go even deeper. The American Institute for Research (AIR) conducted a study that analyzed data for students who attended well implementing network schools and students in comparison schools in California and New York to assess the outcomes of deeper learning strategies and structures combining technology and project based learning. After accounting statistically for differences in student background characteristics, researchers identified the following results (1) Students attained higher test scores than their peers on standardized tests in E/LA, math, and science, (2) Schools had increased graduation rates, (3) Among the graduates, more students attended higher education, (4)Students reported increased levels of collaborative skills, engagement, motivation, and self-efficacy as compared to their peers (Kingston, May, 2016).

Overall, there are similar studies and evidence that support using technology in classrooms give students a broader view of the world than ever before through and enhance learning opportunities. The potential problems lie in that changes in methodology and student population are taking place is on a high-speed course compared to the past. As there are many factors that contribute to problems, none are happening as fast as technological advancements. Technology has transformed the way the way students view life, and the rate of new technology coming out is substantial. It is almost impossible for teachers to keep up with the advancements while maintaining their job. Personal Development days are hardly enough to keep in the know. However, schools have been creating positions within schools for titles such as innovation coaches or instructors to help keep staff up to day with current technology and curriculum innovation delivery. Another approach are Professional Development

Communities (PLC's) in schools have conformed to base their learning on technology. Also, schools have purchased more interactive curriculum, such as Math 180® or Read 180® that combines both direct instruction and technology. Given the current screen culture of children schools are going to be forced to create further advancements in training opportunities.

As a result of technology, students are coming to school with a large idea of instant gratification. Before kindergarten, children have had easy access to most information. As, we know as adults, not all problems can be solved with the touch of a button, or swipe of screen. This easy access and instant gratification are difficult for children when there are difficulties and frustration rises. It is argued that student's attention spans have lessened and it is more difficult to keep students engaged as they are easily distracted with technology. However, technology combined with PBL, can make deeper learning happen, they achieve academically and develop deeper learning knowledge, skills and beliefs, including: critical thinking and problems solving, collaboration, communication, self-directed learning, and an academic mindset (Kingston, May, 2016).

The Buck Institute for Education performed many studies that show positive effect on student achievement, deeper learning outcomes, closing achievement gaps, and increasing motivation using project learning styles, it only makes sense to incorporate technology into projects.

Bullying- As difficult as it is for schools to create "smart phone-free zones" or teach proper phone use, it seems students crave to stay connected through technology.

It is great for students to communicate more efficiently, however, this can give rise to cyber-bullying. Cyber-bullying can negatively impact a targeted student's educational experience. Cyber-bullying and distractions can make teachers and administrators resist using technology in the classroom. However, schools need to meet the student where they are, and today's youth stay cyber-connected 24/7. There are many software management tools used in schools to monitor students technology use, such as GoGuardian® or Faronics Insight that gives teaches real-time view of what students are doing while using technology. In the rise of the digital environment, we as educators need to increase their educational engagement by building safe classrooms, which promote the best aspects of digital technology to leave the bullying behind. Project Based Learning would be to engage students as critical thinkers about the issues. PBL would create projects of inquiry to get students to examine the causes and consequences of bullying and encourage them to generate their own solutions for change.

Student Attitudes and Behavior- All too often students come to school with trauma, home obligations or issues, or just don't have the support they need. The students' needs involve nutrition, sleep, clean clothes, and help with homework. It can be challenging to engage students who are facing these types of problems in their life. However, PBL is embedded in the mission to educate all. PBL never forgets that the main jobs is to prepare students for the predicted and unpredicted future. PBL knows that students are not standardized, they don't learn in a standardized way, and that our students can't be assessed in a standardized manner if we are looking to foster innovation. PBL keeps its eye on the ball no matter the trendy standard or curriculum

package du jour. This helps kids want to come to school and decreases absenteeism, and tardiness. Because the student feels success in many facets of their learning, students gain respect for their teachers and their education. When absenteeism is down, students can eat a nutritious meal at school increasing their academic stamina and overall health.

A study published in the *Journal of Classroom Interaction* used a mixed method approach to examine the impact of PBL on student attitudes. Results were based on surveys, journal entries, approaches to problems solving, and observations, indicated a significant increase in student attitudes toward academics, problems-solving skills, and positive views of the learning environment. It is also worth noting the study concluded the use of PBL facilitated the development of a sense of community in the classroom (Ferreira, Trudel, 2012).

NCLB- Developing 21st century skills while simultaneously abiding by No Child Left Behind Act (NCLB) accountability standards is a challenge schools face today. The NCLB left teachers struggling to teach critical thinking skills but also to teach what will be on an exam. Because funding and evaluations are tied to test score success educators found themselves teaching what student need to know in order to get good scores. As we have discussed previously, students are not standardized and cannot be evaluated in a standardized way. PBL can address these two separate, seemingly opposing, demands of education in the 21st century.

A study looked at the effects of PBL on 21st century skills and No Child Left Behind Accountability Standards in 2012. The study used a mixed-methods action

research model was used to gather and analyze data from a total of 26 subjects as they participated in a PBL unit. The study group was comprised of 13 students categorized in two or more special populations. The comparison group was comprised of students not identified as belonging to any of the special populations groups. Standardized assessments, a teacher reflective journal, and rubric scores were analyzed to determine the ways PBL can support both the development of 21st century skills and NCLB accountability standards (Holmes, 2012). The study demonstrated that increase in developing technology and 21st century skills such as learning and innovation skills and information and technology skills with the use of PBL. Additionally, it demonstrated a positive result in terms of closing the technology achievement gap between underserved students and their peers, especially in the area of constructing and demonstrating knowledge.

*Parent Involvement- T*he Gold Standard in Project Based Learning is that the authenticity to which it is evaluated. The end of the Unit should be a project or artifact to be presented or displayed for parents, peers, staff, and community. PBL is an excellent way to increase parent and community involvement because of the audience element. Every parent has some skill or expertise to share. By creating a roster of student parents and their expertise or skill set, parents can be involved by having the opportunity to volunteer in a project that relates to them in the classroom. In the busy world we live in, often times it is not feasible for parents to be involved all the time. PBL can open up the opportunity. Also, because project are to be relevant, parents have to opportunity to share real world experiences with their children.

Student and Teacher Health- As discussed, PBL can address success rates in graduation, address student's workplace/college ready, and improved attendance and attitudes. PBL also promotes student engagement in authentic intellectual work overall. However, it can be argued that the use of PBL and Traditional teaching varies in effectiveness. The argument is the teacher, not the curriculum that matters most. Like all jobs, teachers need to have training in PBL in order to be effective. Because the outcomes have proven strongly with the use of PBL, it is no question that teachers will perform better. Schools who have successfully implanted PBL into their curriculum have shown increased retention rates and less time take off by teachers throughout the school year. PBL gives teachers autonomy and decreases boredom (Creghan, Adair-Creghan, 2015). Overall, the research suggest when students do well, teachers do well and vice-versa.

Funding- Budget Cuts are happening all over the nation as the cost of education increases for both guardians and public schools. Budgets cuts force schools to reduce curriculum offerings, increase class sizes, and but back on teacher positions. PBL can aid in budget cuts. Although, there is a cost for training and materials, it is not as expensive as keeping up with the newest textbooks. In a world where schools are faced with using old text books and choosing to be able to offer employment to their teachers, it makes sense to train teachers to project based learning strategies.

Motivation:

PBL has a contagious and creative energy for a school building if promoted and used property. Project Based Learning has the ability to help student engage with learning if the motivation is there for the building, staff, and students. PBL can improve

the teaching and learning process because it focuses on developing students as self-directed learners as compared to traditional lectures where students are sponges and regurgitate information fed to them. Nevertheless, change is difficult and can create challenges in motivation. Changing from conventional teaching involves a new discipline needed by teachers and students. Naturally, with any change, students or staff may show resistance as they express frustration in teaching and learning new learning methods. PBL has authentic measurements, but the outcome is not always black and white. Traditional learning often has one outcome and 1 or 2 paths the students will follow and PBL is more focused on the process instead of the outcome.

According to educational phycologist Paul, R. Pintrich, there are three components which could affect motivation; (1) Students' beliefs about the importance and value of the task, (2) Students' beliefs about the ability to perform the task, (3) Students' feelings about themselves or their emotional reactions to the task. Overall, students will immerse in projects or learning that seem worthwhile for them and promise them the possibility of success (Pintrich, 2004). During change it is normal for people to resist then they feel uncomfortable or unsecure. However, creating lessons that are both worthwhile and promise the possibility of success motivation will be present.

One common goal of every educator is to build intrinsic motivation in their students. Although, there are many factors that may affect motivation, educational phycologist often refer to extrinsic, social (relationship), achievement, and intrinsic motivational factors that affect students ability to engage in tasks (Harun, Yusof, Jamaludin, Hassan, 2012). Extrinsic, social/relational, and achievement motivation can destroy life-long learning because the motivation to learn is for the wrong reasons.

Extrinsically motivated students are often referred to as surface-learners, because their learning is strongly attached to the outcomes of the task and only focus only on the topics that will be tested on. As previously mentioned before this is used as a traditional method and a problem teachers face as we live in the world of standardized testing. Intrinsically motivated students are interested in the course content itself, persevere when challenged, they are willing to seek out new ideas and keep asking questions. Ergo, the more curious a student is, the more knowledge he/she acquires. Thus, students with intrinsic motivation tend to adopt deep-learning style. When they realize the existence of gap between the current knowledge they have and the desired knowledge they are expected, they will put a lot of effort to understand what they learn and explore the reasons behind the assignments without having any prior experience in the task (Harun,Yusof, Jamaludin, Hassan, 2012).

The truth among students are there are more who are extrinsically motivated than intrinsically motivated. The problem is we use traditional teaching methods that do not encourage intrinsic motivation. Then we are educators wonder why students are not self-motivated? Stimulating students' motivation is crucial issue that should be tackled by PBL facilitator to ensure that students are able to successfully attain the intended learning outcomes. Project based learning enables students to find the fun of learning and discover and reap learnings benefits.

CHAPTER III: DISCUSSION AND CONCLUSION

Discussion

Research has shown not only how project based learning can increase the ability for a student to not only learn but to become lifelong learners. As we reach a new age in teaching and our classrooms are so diverse and we too are only one person, it is time we start changing out teaching strategies to ways that will accommodate our youth and promote active learning. Also students need to be college and career ready. A big part of being college and career ready is knowing how to work with others, follow procedures, and problem solve. Project based learning is a great vehicle to deliver these skills needed to be college and career ready.

Personal Classroom Case Study

I have currently transformed a traditional classroom based instruction class called Career Awareness at Intermediate District 287 into a project based learning instructional class. As a result the students had higher attendance, engagement, and self-reported that the class helped them find a path to be college and career ready. The participants in the class were 10 students per class, 2 female and 7 male. The ages of the students are 18-21. The students are participants at a level IV transition school. 100% of the participants are disabled. The disabilities are Emotional Behavior Disorder (EBD), Autism Spectrum Disorder (ASD), Downs Syndrome, Developmentally Cognitively Delayed (DCD), and Deaf/Hard of Hearing (DHH), Attention Deficit Hyperactive Disorder (ADHD), and Other Health Disorder (OHD). Also noted among

the participants is a blind student, and a non-ambulatory student. The school building is 80 percent on free and reduced lunch.

The outcomes for the class are as follows:

- Students will complete assessments of current interests, skills and experiences.
- Students will explore careers of interest
- Students will set realistic goals for a possible career path
- Students will understand what realistic goals are needed for various career paths
- Students will demonstrate an understanding of the job search process and resources.

Students are also evaluated on work habits in the class. They are as follows:

Cooperates/respects rights and properties of others	Works independently
Follows school/classroom guidelines	Works carefully and thoroughly
Demonstrates self-control	Completes and hands in assigned tasks
Assumes responsibility for own actions	Responsible for supplies and belongings
Displays positive attitude	Demonstrates organizational skills
Attentive in class	Participates in classroom activities & discussions
Follows directions	Punctuality
Attendance	

The 2016-17 school year, this class was taught using traditional methods. Students completed a lengthy 10 page scavenger hunt on the computer using the Minnesota Career Information System (MNCIS) website. The student would also complete an online career inventory assessment. The student would then deduce what career they would be interested in and write a research paper based on the MNCIS

scavenger hunt and the assessment. The research paper would be the summative assessment and the scavenger hunt would be the formative assessment. The embedded assessment are the work habits assessed in the chart above.

The class was transformed by students performing jobs in the top 5 industries. Students performed 5-6 short jobs that would associate with the industries and were formatively evaluated on their end products. Students then had to also report on if they liked the performed task. Students had rubrics for each task and project completed. See Table 1. The rubrics can be combined and the data synthesized to evaluate students on their work skills and career paths. Students then will use their data and find jobs on the internet using Onet.org to research 3-5 potential careers in their preferred industry. Finally the Summative assessment is a presentation of skills, job outlook, education needed to obtain the position, salary, and upward mobility. See table 2.

There were 3 students who were recommended to re-take the course from the 2016-17 school year into the 2017/18 school year. These students were given a pre-test and posttest of their knowledge and learning style. All three students reported that they learned more, were more engaged, and felt they had a good idea of a possible career path from the PBL style than that of the traditional classroom style in the year previous. All students received a passing course grade of B or higher. Work refusal was less than 10% of the academic Quarter. The course was offered all four quarters of the 2017/18 school year with similar outcomes of student performance.

Many teachers, and staff were impressed with the student engagement. Many staff and teachers have never seen students perform the caliber they were using. Many students demonstrated communication skills and problem skills that had not been

observed yet. The rubrics and projects collected by the students made great artifacts for IEP data. It has been my experience with using project based learning methods that student's engagement, attendance, and performance increase. Observations by administration and the districts innovation coach noticed the same increase in engagement, attendance, and performance. Project based learning method in this setting also assisted me as an instructor to more easily differentiate tasks and make accommodations necessary for each individual student.

Professional and School Applications

From this observation by myself and our administration we have started a studying project based learning methods and implementation in our professional learning communities (PLC's). With the help of the districts innovation coach, we have been able to create a rubric and evaluate each class our building has to offer. The rubric contains the check off for the 5 gold standards of project based learning and assesses whether or not the class has elements of project based learning methods. The syllabus ensures that the learning intentions and SEL intentions are aligned with the content as well as the assessments. As a PLC we are examining the rubrics of each course and discussing how we can move each class toward project based learning. I feel our rubric needs more focus on the "what" or artifacts that will be generated but at least we are moving in the right direction. Staff are also motivated by this move toward project based learning.

Conclusion

Through the research and personal experience for project based learning methods, it is evident that this strategy is good solution to the uprising problems we are facing in the classroom. The ultimate goal of an educator is to create life-long learners that can transpose their classroom learning into real life applications. If a student can do this we can consider our craft a job well done!

When approaching a new era of teaching, we owe it to our students to rethink what learning looks like. The days of factory settings of bells and sitting at desks are no longer serving our population. There will always be pressure to conform to a vision of the classroom that does not match what research shows us is best for our students. Student evolution is simply moving too fast for research to keep up. There will always be those who find reasons to teach students to sit quietly, to take notes, and to recognize the teacher as the sole authority. As Dr. Haberman discusses, compliance seems calm and a good environment, but it is not the vehicle for active learning, it is merely the vehicle for resistance and disengagement. It is our job as educators to carefully examine these reasons and then choose evidence based research methods and discard bad methods to serve our students in the best way we can to create life-long learners. We must do what can to truly help our students become better thinkers, learners, and scientists.

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Table 1

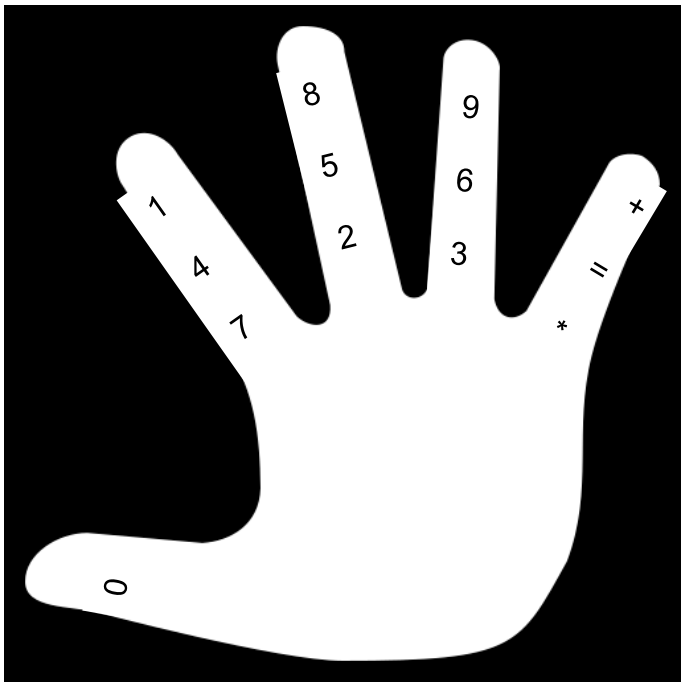
Business-Marketing-

Administration 10-Key Data Entry Practice:

(70:00)

1. Gather Materials: 10 key adding machine (black calculator), 10 practice sheets, and easel document holder, drawn hand cheat sheet.
2. Using the #1 practice sheet, key in equations according the drawn hand cheat sheet
   NOTE: do NOT tear sheet off of calculator until the entire practice page is done.

3. After completing the sheet, tear off of calculator, have a staff correct it, and continue on to the next sheet.
4. When finished record results and put away materials.



Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

10 Key Official Typing Test:

1. Gather Materials: Desktop computer

2. Log in and open internet. Go to the link below. NOTE: The website must be typed exactly.

3. Record Accuracy and KPH

https://official-typing-test.com/test/tenkey1.html

	KPH:	Accuracy:
1 Minute:	_____	_____
3 Minute:	_____	_____
5 Minute:	_____	_____

Alphabetical Filing:

	Score (# correct/26)	Time
Level 1:	_____	
_____	(10:00)	

Interests	High	Moderate	Low	
Amount of assistance	Independent	Verbal directions	Demonstrated	Guided practice

needed				
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Level 2 _____

_____ (6:00)

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice

Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Paper Filing: (1:45)

1. Gather Materials: File folders, file holder, green paper, timer.
2. Start timer and fill all 5 folders with 10 sheets of paper each.
3. Record results and put away materials.

Score (#correct/10) Time

Interests	High	Moderate	Low	

Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

_____ _____

Data Entry: (20:00)

1. Gather Materials: Desktop computer

2. Log in and open internet. Go to the link below. NOTE: The website must be typed exactly.

3. Start the timer and start the test. Continue taking tests until you receive a 100% accuracy score.

https://www.keyhero.com/free-typing-test/

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Food Service

*__Please wear an apron which is located behind the classroom door.__

__*In the black cabinet you will find beans, rice, and flour in covered containers.__

Measuring:

BEANS: (0:35)

1. Gather Materials: Beans, measuring cups, 3 bowls, and timer.
2. Measure 1/3 cup beans in the first bowl.
3. Measure 1 1/3 cup beans in second bowl.
4. Measure ¼ cup beans in the third bowl.
5. Record results. Wash and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

RICE: (1:00)

1. Gather Materials: rice, measuring cups, 3 bowls, and timer.

2. **Measure 3/4 cup Rice in the first bowl.**
3. **Measure 1 1/2 cup Rice in second bowl.**
4. **Measure 2 ¼ cup Rice in the third bowl.**
5. **Record results. Wash and put away materials.**

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Flour: (0:45)

1. Gather Materials: Flour, measuring cups, leveler, 2 bowls, and timer.

2. Measure 1 cup Flour in the first bowl.

3. Measure 1/2 cup Flour in second bowl.

4. Record results. Wash and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Food Preparation:

*It is very important to wash your hands thoroughly. If you're not sure how long you should wash your hands sing the Happy Birthday Song.

*All ingredients are in the black cabinet. Follow the directions for each recipe.

*Wash all dirty dishes when finished.

No Bake Cheesecake: (40:00)

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Make Pancakes: (20:00)

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Make Hot Chocolate: (35:00)

Recipe card is located on the top shelf of materials cabinet

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Manufacturing

Complete Ruler measurement worksheet: (1:05)

1. Gather Materials:

2. Start timer and measure the length of each gray bar.

3. Record results and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Block wood measurement: (2:00)

1. Gather materials- labeled wood blocks, tape measurer, work sheet, and timer.
2. Start timer and measure each block of wood. Write answer on the work sheet.
3. Stop timer when finished and record results and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Nails and Hammer: (1:05)

1. Gather materials: block of wood, 2 nails, hammer, safety glasses, timer.
2. Bring materials to butcher block. Put on safety glasses. Start Timer.
3. Nail two nails straight into wood.
4. Record results and put away materials.

Interests	High	Moderate	Low	

Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Screws and Drill: (1:00)

1. Gather Materials: Drill/Screw Gun, two screws, safety glasses, timer.
2. Bring materials to butcher block. Put on safety glasses.
3. Check to make sure screw gun is in proper forward position. Screw in two screws.
4. Record your results and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Coat Hangers: (5 minutes)

1. Gather materials: bag of coat hangers with screws, drill bits, screw/drill gun, ruler, block of wood, pencil, safety glasses, timer.
2. Bring materials to butcher block. Put on safety glasses.
3. Measure the length of the short end. Find the middle of that length and using your pencil draw a line from end to end along the long side of the block of wood.
4. Place the holes on the coat hangers on the line. Using your pencil, fill in the circles.
5. Find the 7/64 size drill bit and place in screw gun. Tighten.
6. Remove coat hangers and drill where the pencil marks are for the holes.
7. Remove drill bit. Add extender with a phillips screw head on it.
8. Place the coat hanger aligned with the drilled holes and screw down the screws.
9. Record results. Unscrew the coat hangers and put materials away.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Hinges: (7 minutes)

1. Gather materials: bag of hinges with screws, drill bits (7/64), screw/drill gun, ruler, 2 blocks of wood, pencil, safety glasses, timer.
2. Bring materials to butcher block. Put on safety glasses.
3. Lay down two boards together and place hinge in between. With a pencil, trace the holes.
4. Remove hinge. Tighten drill bit into screw gun and drill the traced holes.
5. Take out drill bit, tighten in Philips head, place hinge back in place.
6. Screw in screws. Would should open and close to a 90 degree angle.
7. Record results. Remove hinge and put away materials.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Wire together an electrical lamp: (5 minutes)

1. Gather Materials: Lamp bag, wire cutting tool box, Philips screw driver, safety glasses, timer.
2. Put on safety glasses.
3. Feed wire through cord holder and socket cover.
4. Strip both wires on the end with an 14 gauge wire stripper from wire cutting tool box.
5. Using needle nose pliers to wrap the wires around the screws coming out of the socket.
6. Tighten screws with screw driver.
7. Cover with socket cover and cord cover.
8. Screw light bulb in, plug into wall and test light.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Retail/Consumer

FOLDING:

Shirts:

1. Gather Materials: Stack of Shirts located in the bottom drawer of the black cabinet.

2. Fold Shirts so the size tag is facing out.

3. Stack shirts so the largest shirt on the bottom, smallest on top.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Pants:

1. Gather Materials: Stack of pants located in the bottom drawer of the black cabinet.

2. Fold pants. Pant seams should line up and a crease in the pants generated.

3. Fold pants twice in half and stack with the back pocket out.

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Counting Money:

If you count the change that the cash register says to count, all you're really doing is ensuring that you got that amount from the register, but what if you entered the amount incorrectly to begin with? Then your cash register's displayed amount will be wrong and so the amount you hand the customer will also be wrong.

This skill will ensure you have accurate cash in your register to not get written up or terminated for having an inaccurate cash drawer.

Example: Let's say the total is $7.38. The customer hands the clerk a twenty ($20.00). **You do not have to know what the change is going to be – you don't have to do any subtraction!** All she needs to do is count up from $7.38.

The process looks like this: You count to yourself 7.39, 7.40, as you take two pennies. 7.50, as you takes a dime. 8.00, as you take two quarters. 9.00, 10.00, as you take two ones. 20.00 as you take a ten. Then you should count it back to the customer in the same way. Rather than offering the customer $12.62, she should count it back from the total.

1. Gather Materials: Cash box filled with money

Make change:

$20.00 – $11.73=_____

$50.00 – $26.75= _____

$20.00 - $8.25=_____

$10.00 - $7.35=_____

$20.00-$12.46=_____

$50.00-$31.42=_____

$10.00-$5.52=_____

$5.00-$2.14=_____

$100.00-$65.75=_____

$50.00-$42.55=_____

Marketing:

Create a visual advertisement that promotes the latest Shampoo using the technology or software of your choice.

- Needs to include the name of the product
- Show benefits of product
- Outcome of product
- Identifies target audience

Interests	High	Moderate	Low	
Amount of assistance needed	Independent	Verbal directions	Demonstrated	Guided practice
Quality of Work	Correct	Few Errors	Many errors	
Work Rate	Competitive (above time)	Semi-Competitive (within time frame)	Non-Competitive (below time frame)	
Number of Trials to complete	1	2	3	< 3

Table 2:

Practical Experience Reflection

As you finished your experience, please reflect on your experiences. You will create a PowerPoint of a minimum of three slides explaining the following questions.

Include the following:

1. What was your favorite experience? Why?
    a. What jobs could this experience be expanded to?
2. What was your least favorite experience? Why?
    a. What jobs could this experience be expanded to?
3. What careers did this Practical Experience make you think you want to explore?
    a. What does this future look like in the next 10 years?
    b. What is the low, medium, and high salary expectations?
    c. What, if any education and experience do you need to obtain this position?
    d. What possible career paths would this lead to in the future?