

Evaluation of E-Bucks: A Simulated Classroom Economy

by

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ABSTRACT

The purpose of this study was to investigate the effects of E-Bucks, a simulated classroom economy (a token economy system), in business classes on students' grades, absences, and tardiness. The study compared these variables in classes using E-Bucks to those in similar classes before E-Bucks was initiated. The following research questions were addressed: (a) How did the mean term grades in business classes that included E-Bucks compare to those in similar classes prior to the E-Bucks implementation? (b) How did the mean number of student absences in business classes that included E-Bucks compare to those in similar classes prior to the E-Bucks implementation? (c) How did the mean number of student tardies in business classes that included E-Bucks compare to those in similar classes prior to the E-Bucks implementation?

Four teachers in 3 high schools in Phoenix, Arizona, participated in the study that included 22 sections of business classes with a total of 568 students. All participating teachers implemented the token economy voluntarily, although some implemented the program more consistently than others. All of the teachers administered district-aligned assessments with the same terms/occasions throughout the district. Archival data (term grades, attendance, and tardies) from 3 years of business, technology, and marketing courses were collected and analyzed.

The results of 4 analyses of variance examining the dependent variables of grades, absences, and tardies were mixed. The results demonstrated significance for some but not all of the teachers' classes on all 3 dependent variables. In 1 of the 4 analyses 2 teachers had approached significant increases in grades when students were "paid" for grades. The same two teachers had nonsignificant decreases in the

mean number of student absences during the grading period students were “paid” for grades. Recommendations included studying a larger number of students and measuring the impact of gender and socioeconomic status on the effects of the E-Bucks simulation.

DEDICATION

This dissertation is dedicated to my beloved mother, Dorothy Jo Waggoner, for her support throughout my life. I love my mother dearly and I will always love her for being a wonderful mother and my best friend. I thank her for being there for me and loving me every day. She has been a role model and shown me how to believe in my ability to do anything with faith, perseverance, and hard work. She has taught me how to live with integrity, joy, peace, and humility. She is the solid rock in our family; we are a family because of her unconditional love and sacrifice.

The dissertation is dedicated to Anthony Joe Waggoner, whom I love more than words can express. I am grateful to have the opportunity to call him my son. The dissertation is also dedicated to my entire family, which includes all of my relatives, dear friends, and church family. Family is very important, and I value the time we have together.

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CHAPTER 1

INTRODUCTION

Experiential Learning in Education

I believe that the only true education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself. . . . Education must be conceived as a continuing reconstruction of experience; that the process and the goal of education are one and the same thing. (Dewey, 1897, pp. 77-80)

Philosopher John Dewey's creed—written more than 100 years ago—captures the essence of this study about experiential learning. The educational system has a responsibility to educate all students. Student achievement, as measured by grades and/or test scores, is the main indicator that learning is taking place. However, students must be present, physically and mentally, to learn; at the same time, they must be actively connected to what is being taught in the classroom. Many students are disengaged from learning because they “see no connection between what they learn in school and the skills they need to function in real life” (Schmitz, Baber, John, & Brown, 2000, p. 66).

Connecting classroom experiences and education to real-world activities is experiential learning that provides learners with skills required for success (Kolb, 1984). Experiential learning creates opportunities for teachers to develop a “framework for examining and strengthening the critical linkages among education, work, and personal development” (Kolb, 1984, p. 4). Because the 21st-century classroom is constantly evolving, students need to develop skills that will assist them in the future global economy. Experiential learning offers students a practice learning model that prepares them to meet the challenges of tomorrow (Moon, 2004).

Experiential learning activities, which have been effective across various grade levels and school populations, provide numerous opportunities for educators to foster a real-world learning environment in their classes on a daily basis. Experiential learning activities strongly encourage students to be active participants in their education. In addition, experiential learning activities offer an opportunity for educators to motivate students to succeed. Moreover, experiential learning focuses on the practical application methods that provide opportunities for students to work with others and learn to adjust socially (Leventhal, 2004). In essence, experiential learning strategies motivate students to stay actively connected physically, mentally, and socially.

Constructivism in Education

Experiential learning is a component of constructivism, and both methodologies influence and impact student learning. The constructivist theory in education focuses on influencing students to become independent thinkers rather than passive recipients of information (Kain, 2003). Constructivism practices in education challenge students and encourage them to build personal knowledge through inquiry and relevant activities. Constructivism places students first and requires them, rather than the teacher, to do the work in the classroom. Research reveals that the “de-centering of the teacher” (Kain, 2003, p. 125) is vital to fostering an educational environment that consistently connects to students. Moreover, students should be involved in their learning at all times and the teacher should be the facilitator.

Constructivism supports the concept of experiential learning, problem-based learning, project-based learning, and active learning. Moreover, the

constructivist perspective of learning concentrates instruction and hands-on activities toward the goal of “owning” their learning experiences (Moon, 2004). The constructivist model of learning suggests that students should be able to understand the meaning and value of their education.

Rationale and Context of the Study

The purpose of this study was to measure the effects of E-Bucks, a simulated classroom economy on students’ (a) grades, (b) absenteeism, and (c) tardiness. Student achievement and attendance are major concerns in the public school system. The extensive body of research on school effectiveness suggests that students tend to drop out when they are not invested in their education and when they are not connected to their individual learning (Rumberger & Palardy, 2005).

Student achievement has been reported in educational literature as a major concern because all students deserve a quality education. Researchers have found that student achievement is correlated to higher rates of daily student attendance (Sheldon, 2007). This study was designed to investigate the impact of an experiential learning token economy on students’ grades, absenteeism, and tardiness.

The educational literature reveals a need for students to become independent critical thinkers rather than being recipients of knowledge poured into them by educators (Kain, 2003). The development of critical thinking skills enables students to assume an active role in their education because they take ownership of their own learning, a process called *active learning* (Smart & Csapo, 2007). Therefore, when children have opportunities to work on projects that relate

to their personal lives, they are more likely to develop *task-focused goals* that will prepare them to be successful personally and academically (Forsyth, 1993).

A commonly reported theme in progressive educational literature supports the idea that, in the approach to these issues, curricula should connect to relevant topics and create opportunities for students to be actively engaged through various types of experiential learning activities such as instructional games, simulations, role play, internships, and token economies. Experiential learning activities encourage students to think critically and apply their knowledge (Daniels & Zimelman, 2003).

Token economies offer almost unlimited possibilities for students to learn about life, business, and the world. Token economies consist of “a behavior modification plan that uses tokens as a primary reinforcer” (Gallagher, 2005, p. 13). A token reinforcement system is a “behavior modification tool that is integrated into a structured program for users” (Fargo, Behrns, & Nolen, 1970, p. 23). Token economies are “closed economies” that manipulate economic variables in a controlled environment such as a classroom (Tarr, 2001). Therefore, students learn about the real world in a classroom token economy. A simulated economy creates task-focused opportunities for all students to participate actively in class on a daily basis while simultaneously providing tokens as rewards for desired individual behaviors.

Brief Description of E-Bucks

This study evaluated the effectiveness of implementing an experiential learning strategy called E-Bucks, a simulated classroom economy. The E-Bucks token economy was implemented in various high schools in the Phoenix, Arizona,

area from 2007 to 2010. E-Bucks is a classroom token economy that is designed to motivate students to be more engaged in class through rewards (tokens). The E-Bucks token economy focuses on a behavior modification model that encourages students to perform desired behaviors. The E-Bucks token economy utilizes real-world application to connect E-Bucks to the students' lives.

Just as in the real world, where adults earn a wage or salary for working, the E-Bucks simulated economy compensates students for performing various tasks and desired behaviors. The classroom simulated economy helps students to understand how their education relates actions and consequences to concepts learned in the real world.

The E-Bucks simulated economy fosters an environment in the classroom that is cooperative and goal oriented (Lee, 2003). The E-Bucks economy is designed to reinforce business concepts such as earning income, purchasing goods and services, paying taxes, purchasing insurance, and record keeping.

The economy offers multiple roles to students, such as banker, sheriff, insurance agent, auditor, real estate agent, and store cashier. The teacher "hires" students to assume these duties on a weekly or biweekly basis. Students earn E-Bucks on a daily basis for behaviors such as coming to class on time, participating in class, submitting assignments on time, asking higher-level questions, and participating in various school activities. In contrast, students are fined various amounts of E-Bucks for negative behaviors such as tardiness, inappropriate language, using bad language, or failing to follow student handbook policies. Students have opportunities to redeem their E-Bucks for rewards in an auction at the end of each 6-week or 9-week grading period. E-Bucks auctions

include various rewards such as gift cards, college T-shirts, candy, movie tickets, and school supplies.

Statement of the Problem

This study was designed to investigate the effect of E-Bucks on students' grades, attendance, and tardiness. Archival data were used to compare business classes that used the E-Bucks strategy to similar classes that did not use the E-Bucks program the previous year.

Research Questions

This study addressed the following research questions:

1. How did mean term grades in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

2. How did the mean number of student absences in business classes that included the E-Bucks simulated classroom economy compare those in similar classes prior to the E-Bucks implementation?

3. How did the mean number of student tardies in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

Scope of the Study

The large southwestern urban school district involved in the study served a diverse demographic of learners. More than 90% of the student population consists of minority students (78.4% Hispanic, 10% African American, 3.2% Native American, 2.4% Asian, and 6% Anglo). The school district has a 78.5% graduation rate. The three high schools at which E-Bucks was implemented are

Title I schools in which more than 40% of the students qualify for free or reduced-priced lunch service.

Four teachers, 22 business classes, and 568 students were included in the study. The business classes studied were conducted from 2007 to 2010. The research population was delimited to business students enrolled in Business Computer Applications, Business Management Administrative Services, and Marketing courses. The courses included students in Grades 9 to 12. The courses included curriculum that ranged from career exploration to cooperative education/work experience.

The researcher's classes were not included in the study to ensure objectivity. Teacher 1 implemented the E-Bucks simulation in all five business and marketing courses in a comprehensive high school. Teachers 2 and 3 taught at another comprehensive high school and both implemented the E-Bucks simulation in their five business and technology courses. The classes for Teachers 1, 2, and 3 met for 52 minutes daily, and grading periods (terms) were 9 weeks long. Teacher 4 taught in a large district vocational school with block scheduling with 6-week terms in Business Management Administrative Services classes that met for 2 ½ hours daily.

The study began with the voluntary implementation of the E-Bucks simulation by all of the participating teachers. The objective of the study was to measure the effect of E-Bucks on three dependent variables: student grades, absences, and tardiness in the business classes that implemented the E-Bucks token economy and compare the data to data from similar business classes taught

by the same teacher during the same term of the previous year that did not implement E-Bucks.

This study used a nonequivalent design because random assignment of students to treatment groups was not possible when the teachers voluntarily implemented E-Bucks. Classes taught by the same teacher with E-Bucks were compared to similar classes and terms the previous year(s) when the teacher did not use the E-Bucks token economy. The archival data used in the study were obtained from classes taught from 2007 to 2010. The selection of classes was based on teachers who voluntarily implemented the E-Bucks token economy after learning about the program from various business education conferences presented in Arizona.

The study did not measure qualitative knowledge of factors such as learning style, student engagement, or knowledge of economics. The study used a nonequivalent control group design by examining Easy-Grade Pro™ (EGP) data provided by the four teachers who had implemented the E-Bucks simulation. The EGP student grade and attendance management program used by the Phoenix high schools that participated in this study stored the data in an Excel® spreadsheet form for teachers to use on a daily basis. The study did not use average daily membership data because that measure involves total school attendance data rather than attendance in the treatment and control classes. The EGP student data used in this study were confidential, and precautions were implemented to protect student information according to the guidelines of the Family Educational Rights and Privacy Act (FERPA).

The independent variables involved in the study were E-Bucks and no E-Bucks, with E-Bucks as the treatment group and no E-Bucks the control group. The dependent variables were student grades, absences, and tardiness. The EGP records were analyzed for all four teachers using SPSS for 22 classes.

Purpose of the Study

The purpose of the study was to assess the effectiveness of the E-Bucks simulation by measuring its impact on student grades, absences, and tardiness. The study measured mean term grades in business courses, mean number of student absences, and mean numbers of student tardies in business classes before and after implementation of E-Bucks.

Systematic collection and analysis was used to determine the effectiveness of the E-Bucks, a simulated classroom economy, and to provide evidence for school districts and teachers to assess the effectiveness of the simulation activity. Experiential learning strategies are mentioned throughout educational literature as an effective method to increase student achievement in K-12 school systems.

Organization of the Dissertation

The rationale for the study, a brief description of E-Bucks, and definitions of terms are presented in Chapter 1. Chapter 2 reviews the literature on experiential learning, constructivism, token economies, student grades, absenteeism, tardiness, and motivation. Chapter 3 includes a description of the study design, participants, treatment, variables, procedures for the data collection and analysis. Chapter 4 presents the results and statistical analysis of the data. Chapter 5 includes a summary, discussion, and conclusions. References and appendices are also included.

Definition of Terms

The following terms are defined for application in this study.

Active learning: A learning strategy that requires students to be actively engaged through a variation of activities and projects.

Authentic projects: Unique activities designed to celebrate the creative ability and intellect of all students; authentic projects reflect the educational growth of all students.

Bankrupt: A term used in the E-Bucks economy that implies that the student does not have wealth in the E-Buck economy similar to the real world.

Behavior modification: A variety of strategies related to shaping inappropriate behavior into desired and appropriate behavior.

Block scheduling: A term used to describe a specific bell schedule and instructional class time for courses that meet more than 1 hour daily.

Constructivism: A teaching philosophy that focuses on the students being the constructors of their knowledge.

Debriefing: Critique and/or analysis of a specific experience or process.

E-Bucks: A simulated classroom token economy that utilizes experiential learning strategies to provide opportunities for students to connect classroom learning to real-world business concepts.

Efficacy: A term that describes one's beliefs about one's ability to accomplish goals and/or tasks.

Experiential learning: A teaching method that encourages educators to create real-world activities for students to experience in and out of the classroom.

Flow theory: An educational philosophy that suggests that students value learning experiences of personal value.

Operant conditioning: A concept that describes the relationship between human behavior and environment and/or nature.

Positive-outcome placements: A concept that describes a student's successful learning experience.

Problem-based learning: A teaching strategy designed to create opportunities for students to encounter real-world problems and/or situations and develop a plan to solve the problem through inquiry, research, and collaboration.

Project-based learning: A teaching strategy that focuses on the end product that students develop as a result of participating in a particular experience.

Simulation: Imitation and role play of something real, such as concept.

Student absenteeism: The calculation and/or percentage of students who do not attend school.

Student achievement: Documentation and evidence of students excelling and doing well academically; student achievement is the measurement of student growth according to academic learning standards.

Student tardiness: A measure of students attending school on time and/or before the "tardy" bell rings at the school.

Token economy: A behavior modification tool used to foster an environment that simulates an economy that encourages students to perform desired behaviors.

Token reinforcement system: A behavior modification tool that uses tokens and rewards as a contingent for desired behaviors in a school and/or medical facility.

Truancy: Absence of a student from class or school.

CHAPTER 2

LITERATURE REVIEW

Purpose

The purpose of this literature review is to discuss the findings reported in the literature that reveal experiential learning as an instructional practice for creating meaningful connections for students through activities that relate to the real world (Rowen, Byrne, & Winter, 1980). In addition, this literature review describes and discusses (a) the purpose and rationale for experiential learning in education, (b) simulations, (c) token economies, (d) student grades, (e) student absences and tardiness, and (f) student motivation.

Experiential Learning in Education

Experiential learning is an effective instructional strategy complementary to traditional classroom learning that can engage students in ways “far superior to information delivered in lectures and/or read in a textbook” (Waggoner & Rader, 2005, p. 40). Experiential learning is an effort to connect the classroom with the real world. Experiential learning consists of four main areas: “definitions of knowledge, elements of cognition, constructivist teaching, and reflective practice” (Jackson & Caffarella, 1994, p. 35). Experiential learning requires each student to be involved and connects the curriculum to the real world so the learner has control over the learning experience (Boggs, Mickel, & Holtom, 2007, p. 834).

Experiential learning creates student involvement and engagement because students can realize its value or relevance to their education. In order for teachers to connect with students, they should maximize instruction time and understand their students’ learning styles and needs (Koch, 2007). A common

theme in the literature related to this study is that a student's active involvement in the learning process creates value for all students and connects to the real world (Smart & Csapo, 2007).

Experiential learning creates opportunities for teachers develop a “framework for examining and strengthening the critical linkages among education, work, and personal development” (Kolb, 1984, p. 4). The 21st-century classroom is constantly evolving and students need to develop skills that will assist them in the future global economy. Experiential learning offers students a lifelong learning model that enables them to be prepared to meet the challenges of tomorrow. Experiential learning connects classroom experiences and education to real-world activities and provides learners with the skills needed for success.

Experiential learning is “designed to create personal experiences for learners” (Kolb, 1984, p. 11). The ability to foster an environment that supports personalized student learning experiences extends the classroom and supports progressive educational cognitive-development philosophy about the development of knowledge and “how intelligence is shaped” (Kolb, 1984, p. 12). Progressive education supports the idea of students constructing their own knowledge, which conflicts with the traditional approach to education.

Educational literature describing experiential learning reports three traditions of experiential learning developed by theories such as those of Lewin, Dewey, and Piaget, all of whom contributed a significant body of knowledge about student learning. Lewin researched cooperative groups, action research, and lifelong learning (Kolb, 1984). Dewey's philosophy supported student-centered learning, “learning by doing,” lifelong learning, and experience-focused education

(Kolb, 1984, p. 17). Piaget supported the school of thought concerning lifelong learning, learning through experiences, and connecting prior knowledge to “real-world” experiences (Kolb, 1984). These three theorists contributed to the development of experiential learning activities. Figure 1 summarizes some of the main strategies and concepts connected to experiential learning.

Lewin	Dewey	Piaget
Action Research	Pragmatism	Development
Democratic Values	Democratic Values	Assimilation/Accommodation
Development	Development	Epistemology
Contemporary Applications of Experiential Learning Theory		
Social Policy and Action	Competence-Ability Based Education	Lifelong Learning Experiential Learning Curriculum Development
Experiential Learning		
Co-op education, Internships, Simulations, Experiential Exercises, and On-the-Job Training		

Figure 1. Three traditions of experiential learning. Source: Experiential Learning Experience as the Source of Learning Development (p. 17), by D. Kolb, 1984, Englewood Cliffs, NJ: Prentice-Hall.

One of the challenges facing teachers today is to increase student engagement in the learning process. Experiential learning activities encourage students to become actively involved in class. Conversely, “Passive learning

techniques are limited in their ability to facilitate students' learning because they do not encourage students to process information actively" (Hakeem, 2001, p. 95).

Experiential learning consists of nontraditional educational opportunities in classrooms that give all students a chance to participate in cooperative and "goal-oriented" activities with peers (Hamilton, 1980, p. 179). Business education curricula should connect to relevant issues and constantly create opportunities for students to be actively engaged in class.

John Dewey, the father of the progressive education movement, advocated learning by doing. Experiential learning or "learning by doing" is defined as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1987, p. 359). Dewey maintained that schools should reflect real-life experiences in society (Columbia Electronic Encyclopedia, 2007). According to Dewey, "Traditional education became often detrimental to the growth of children because the student was not actively involved in ways which contribute to the student's growth in society" (as cited in Simpson, 2001, p. 192). Therefore, increasing student engagement is vital to the development of children because experiential learning experiences "can provide the increasingly growing numbers of non-traditional learners as well as traditional learners with valuable opportunities to apply theory to practice" (Hakeem, 2001, p. 95).

Experiential learning focuses on the practical application methods that provide opportunities for students to work with others and to learn to adjust socially (Leventhal, 2004). In addition, experiential learning may make abstract knowledge more usable for students as it provides hands-on learning activities

(Hamilton, 1980). Therefore, experiential learning is an essential instructional method in education because it embraces learning by doing.

Kolb (1987) defined experiential learning as the process of transferring knowledge via experience. Through challenging hands-on real-world activities, referred to in the literature as *authentic projects* (Kraft, 2005), students who are actively engaged in authentic projects tend to build skills, such as critical thinking that can help them to retain more information (Kain, 2003). Authentic projects accommodate multiple learning styles and provide content-rich learning for students that is relevant to the real world (Kraft, 2005). When students are actively involved through hands-on learning simulations and projects, the level of personal commitment is increased (Emerson & Taylor, 2004). Experiential learning is an effective strategy for motivating students and “narrows the gap between ends and means (and the gap) between acquisition and application” by allowing students to participate actively in authentic class projects (Hamilton, 1980, p. 183). Moreover, authentic projects encourage students to learn and prepare themselves to be successful in the business world (Breault, 2003).

According to Dewey, “The theory of experiential learning places an important emphasis on the subjective quality of the student’s experience” (as cited in Shatzer, 2008, p. 9). One of the challenges facing teachers today is the need to increase student engagement in the learning process. When students are active participants in authentic projects, they learn to process academic information effectively and to apply what they have learned (Hakeem, 2001). Experiential learning encourages students to become actively involved in class by participating in nontraditional classroom activities, including cooperative and “goal-oriented”

projects with peers (Hamilton, 1980, p.179). Experiential learning is more than an instructional activity in which students participate; its purpose is for the students to learn from their experiences and to make connections to prior knowledge (Smart & Csapo, 2007).

Participation in experiential learning activities can increase students' motivation and commitment to learning (Lee, 2003). In addition, experiential learning activities may make abstract knowledge more usable for students and provide hands-on opportunities to apply it in a setting similar to the workplace (Hamilton, 1980; Lee, 2003).

Experiential learning provides students with multiple opportunities to build transferable business skills are needed as preparation for the business world. Dewey observed, "Education is neither a 'drawing out' nor a 'pouring in,' but a 'taking hold' of the activities that stem from instincts" (as cited in Simpson, 2001, p. 185). In other words, when a student has an opportunity to participate in hands-on experiential activities, the student is "taking hold" (or developing ownership) of his or her own education and learning.

According to Dewey, teachers should "give pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results" (as cited in Crookall & Thorngate, 2009, p. 11).

Experiential learning activities provide many ways for students to apply their knowledge, develop critical thinking skills, and solve problems in an authentic classroom environment. These activities foster a learning environment that creates opportunities for students to connect the concepts that they have

learned to real-world situations that lead to “greater retention and more thorough understanding” (Hamilton, 1980, p. 185).

Kolb’s extensive research on experiential learning in general and experiential learning in teams is a central theme in educational literature. Kolb developed an experiential learning cycle, learning style inventory, and the Kolb Team Learning Experience (Kayes, Kayes, & Kolb, 2005). The Experiential Learning Cycle and Basic Learning Styles Inventory was created by Kolb (1984) to assess individual learning styles. Kolb’s four-stage cycle of experiential learning consists of the following four modes: (a) concrete experience (CE), (b) reflective observation (RO), (c) abstract conceptualization (AC), and (d) active experimentation (AE). Kolb emphasized “the combined role of experience and perception as well as cognition and behavior in learning” (Herz & Merz, 1998, p. 240).

To get meaningful results from implementing experiential learning activities in the classroom, the activities must be used on a regular basis. Kolb’s research concluded that “teaching techniques cannot be expected to support the learner to proceed through all . . . stages of learning in a similar way” (p. 240). The learner must be actively involved in the learning process rather than passive. The learner is responsible for his or her learning, and the experiential learning environment promotes self-control and accountability (Karlin & Berger, 1971). When students are responsible for their learning, teaching becomes more valuable and memorable.

Herz and Merz (1998) studied the learning process in the simulation/game *MACRO* in teaching economics; they compared 52 college students in three

groups using Kolb’s experiential learning process. The effectiveness of the teaching method was compared by evaluating their contributions to the learning process described by Kolb’s concept of experiential learning. Herz and Merz found that students who attended the economics seminar in the control group had a “low-to-average experience contribution” compared to students who attended the gaming seminar in the experimental/treatment group (Herz & Merz, 1998, p. 245). Students in the experimental/treatment group had “significant gains” in all phases of the learning cycle (p. 247).

Figure 2 describes how the learning cycle relates to basic and foundational learning styles. Understanding how students process information and learn foundational concepts is crucial because every student is unique and learns differently. Experiential learning provides opportunities for more students to process information and concepts utilizing a student-centered learning style.

Concrete Experience	Reflective Observation	Abstract Conceptualization	Active Experimentation
Accommodating	Diverging	Assimilating	Converging
Diverging	Assimilating	Converging	Accommodating

Figure 2. The experiential learning cycle and basic learning styles. Source: “Experiential Learning in Teams,” by A. B. Kayes, D. C. Kayes, & D. A. Kolb, 2005, *Simulation and Gaming*, 36, 330-354.

A study comparing 12 Pennsylvania high school work-based experiential learning programs and non-paid student internships investigated how the students felt about their experiential learning internships (O’Connor, 2007). The study

examined data collected during informal interviews by the work-based program coordinators. The major themes of this research consisted of relevant elements found in “positive-outcome placements” and how those elements related to experiential learning research in the field of education. The term *positive-outcome placements* emerged from conversations that O’Connor had with placement program coordinators because it offered a broader description of the participants’ experience than “most successful” (p. 42). The findings supported the past and present literature on experiential learning regarding the application value related to students participating in experiential learning activities that connected to the real world.

O’Connor (2007) completed a qualitative case study in four south-central Pennsylvania high schools that included 12 high school experiential learning placements. O’Connor contacted school-based coordinators of educational work-based placement programs to conduct informal interviews. The work-based programs consisted of cooperative learning student placements and non-paid student internships. O’Connor examined how these students felt about their individual student placement programs. The major themes of his research consisted of relevant elements found in “positive-outcome placements” and how those elements related to experiential learning research in the field of education (O’Connor, 2007, p. 2).

O’Connor (2007) examined the “significant, consistent, predictive components found in positive-outcome placements” and how “those characteristics related to previous theoretical projections” (p. 2). To ensure validity, O’Connor chose high schools with a “minimum of personal influence”

(p. 51). O'Connor "interviewed participants, examined archival material, visited and observed . . . the experiential learning education experience, and made conclusions regarding the data" (p. 42). O'Connor's findings revealed three factors. First, each student "engaged in a significant amount of legitimate peripheral participation" (p. 53). Second, each student "showed significant degree of joining into and being accepted by the community" (p. 53). Third, the "value of mentor-protégé relationship emerged as a positive component of positive placement" (p. 54).

A study completed at the University of California, Santa Barbara, investigated an Experiential Internship Learning Program (EILP) at a liberal arts college. The research sample included sophomores, juniors, seniors, and graduate students enrolled in EILP 2005 fall semester (Shatzer, 2008). Shatzer's study found that, when students were engaged and invested in their learning, their educational experience was positively influenced. The study described experiential learning as the student connecting with their learning rather than the teacher as the giver of knowledge. The study addressed the idea that students should have hands-on experiences that provide educational encounters for all students on a daily basis (Shatzer, 2008). The study used an online self-reporting system for the pretest and posttest. The results of Shatzer's study suggested that off-campus learning experiences had a positive influence on college learning outcomes, although other studies have reported that off-campus employment had a negative outcome.

Simulations

The idea of simulations and/or games in education is not new. The first simulations/games in education were developed in the “war game simulations of Wei-Hai, which originated in China about 3,000 BC” (Keys & Wolfe, 1990, p. 309). Educational literature defines simulations in two components: (a) real-world situational representation, and (b) a continuous activity in which participants demonstrate the ability to solve problems in various environments (Jiwa, Lavelle, & Rose, 2005). In order for simulations to be successful, the student must believe that there is value in the activity and must be actively involved in the simulation (Tansey & Unwin, 1969). Creating value makes learning and knowledge more meaningful for students (Davison & Gordon, 1978).

The research on gaming reveals that simulations and games provide learners with “experience that can processed through reflection and/or debriefing” (Crookall & Thorngate, 2009, p. 8). Student reflection and class discussion in the form of *debriefing* is an effective tool for teachers to use because the student is encouraged to process the simulation in relationship to the course curriculum. The debriefing of simulations assists students to understand how their course work connects to their lives (Kriz, 2003).

Simulations support the classroom and often extend classroom learning. Simulations can be organized by three categories: (a) degree of “interactivity,” (b) connection to the real world, and (c) relationship between the simulation and user input (Oakes, 2002, p. 59). Simulations have the potential to connect to multiple students because of the inclusive nontraditional design. Students who participate

in simulations have an opportunity to learn through real-world experiences that extend education beyond the four walls of a traditional classroom.

Traditional teaching methods depend on the instructor to impart knowledge to students; simulations shift the relationship between the instructor and student because they focus on the “knowledge-action gap.” Connecting the curriculum to the real world and requiring students to apply their knowledge via simulations or games enable educators to achieve student learning (Crookall & Thorngate, 2009, p. 11). Simulations place students in an environment that is socially constructed to provide them with glimpses of the real world through multiple activities and provide students the opportunity to integrate instruction, curriculum, and application (Meyers & Jones, 1993).

The *Microsociety* simulation is an excellent example of an experiential learning program that incorporated real-world experiences for all students and especially for disadvantaged students. *Microsociety* was created in 1967 by Dr. George Richmond. As a new teacher in New York City teaching disadvantaged students, Dr. Richmond developed the simulations as a strategy that could motivate, challenge, and connect with all students on a daily basis. This innovative teaching concept incorporated the *simulation* concept of imitating economic society into a traditional classroom setting that provided relevance to learning through real-world application. The *Microsociety* program consisted of the following elements: (a) common focus, (b) personal goals, (c) internal currency, (d) markets, (e) private and public property, (f) organizations, (g) meaningful contacts with working adults, (h) academics, (i) strands, (j) integration of experiences and academics, (k) jobs and marketplace skills, and (l) real-world

evaluation measures and results. The program was an extension of the classroom and provided a platform for students to learn through life experiences. The Microsociety simulation has impacted the lives of various subgroups of students (Richmond & Richmond, 1996).

The Stock Market Game is a virtual simulation that provides opportunities for students to learn about the economy; it is produced by the Securities Industry and Financial Markets Association (SIFMA) for Investor Education (Rader, in press). This simulation connects real-world economic experiences for students and provides students hands-on activities to understand how financial markets operate, using a virtual investment portfolio. The simulation teaches students about important educational concepts using a nontraditional strategy that incorporates student application through authentic assessment.

The Classroom Mini-Economy, developed by the Indiana Department of Education and distributed by the National Council on Economic Education, is a form of instruction designed to encourage students to learn about economics and apply their knowledge through various real-world activities (Day & Ballard, 1996). The *Classroom Mini-Economy* was very successful with hundreds of teachers in Indiana and has been applied in many other states. The purpose of the simulation is to inform students about economics and to equip them with necessary skills to apply that knowledge. The Classroom Mini-Economy includes four concepts: (a) economic instruction, (b) classroom management, (c) application of basic concepts, and (d) money management. Increasing students' understanding of economics is vital. This simulation provides instruction that is

engaging and strengthens the economic curriculum through connecting with students; the method discourages passive learning (Day & Ballard, 1996).

The *Simulated Society* (SIMSOC) focuses on creating experiences of value for participants regarding becoming productive citizens. SIMSOC incorporates cooperation and creates realistic experiences for participants that address conflict, personal accountability, decision making, and communication skills. This simulated society creates opportunities for participants to respond to situations that highlight the significance of individual choice and rules regarding personal judgment. The simulation poses ambiguous situations that require participants to apply decision-making skills (Gamson, 1966).

Other simulations include various virtual teaching strategies that provide opportunities for students to learn about money and the economy. The National Council for Economic Education (NCEE) has published multiple simulations that teachers can use at the elementary and secondary levels. The *MinyanLand* is a free simulated community developed to instruct students in Grades 2-6 about personal finance and the economy (<http://www.manyanland.com>). The *MinyanLand* simulation consists of various virtual games for students, including *Lemonade Stand*, *Paper Route*, *Catch the Money*, *Word Search*, *Money Sorter*, and *Where Did You Get That Money?* (McCoy & Rader, in press). The *MinyanLand* simulation creates opportunities for students to increase their economic understanding of how money works in various interactive virtual communities. Simulations such as the *MinyanLand* can be “especially useful as a learning tool because they model some aspects of reality in a safe environment” (Adobor & Daneshfar, 2006, p. 153).

Another study developed an opportunity for students to participate in a simulated classroom congress. The *Becoming Congress* simulation was implemented in government classes as a component of the required curriculum (Bernstein & Meizlish, 2003). The study examined the effect of American government classes that implemented the simulation and compared the effect to classes that did not implement the simulation. The simulation lasted 3 weeks during the second semester. Student participants completed a pretest/posttest survey. The study revealed that “students believe they are learning something in their government classes, regardless of whether they are in a simulation class” (Bernstein & Meizlish, 2003, p. 208). The study showed that the “effects of experiential learning techniques are likely to be greatest on long-term retention and changes in underlying attitudes” (Bernstein & Meizlish, 2003, 209).

A simulation entitled *Too Good for Violence* encourages use of collaborative learning activities, role-play scenarios, group games, and whole-group discussions to influence the behavior, knowledge, and perceptions of students (as cited in Hromek & Roffey, 2009, p. 634). The simulation promotes the “social-moral development of students” through educational simulations that focus on student-centered instruction (Hromek & Roffey, 2009, p. 634). Simulations such as this provide students learning experiences that are interactive and motivating.

Token Economies

Token economies provide students with extrinsic motivation through a reward system that is imbedded in the token economy. Token economy programs address issues related to classroom management and student motivation

(Lauridsen & Langdon, 1978). Token economies provide an example of how behavior can be modified through *operant conditioning*, which is a concept used to describe the relationship between human behavior and the environment (Welch, Gist, & Bensberg, 1974). Student involvement and participation is a serious concern in education and is complex in nature. Token economies “facilitate the development of new (unexpected) skills” (Ward-Maguire, 2007, p. 2). The E-Bucks simulation exemplifies a token economy designed to capture the attention of students and apply the subject material taught in class to the real world. Token economies incorporate principles of operant conditioning as they are designed to influence behavior (Kazdin, 1977).

A majority of the studies of token economies have dealt with populations in mental institutions (Tarr, 2001). Patients received tokens for performing desired behaviors and lost tokens when they did not perform the desired behaviors. According to Tarr (2001), “Behavioral psychologists argue that, in general, if one desires an organism to behave in some prescribed manner, then the organism should be rewarded (reinforced) with that which it desires, contingent upon its performance of the prescribed act” (p. 1137). Ayllon and Azrin’s studies of token economies with psychiatric inpatients indicated that reinforcement were an effective strategy to maintain job performance in the health care field, as compared to noncontingent token reinforcement (as cited in Tarr, 2001).

A study of token economies relating to economic organization and worker productivity divided “trainable” adults equally into reward and nonreward groups that performed a regular industrial task (Tarr, 2001, p. 1139). Tarr’s study showed

that the group receiving a monetary reward performed significantly better than the no-reward group (Tarr, 2001).

The basic components of a token economy include (a) tokens that can be distributed quickly and in an orderly manner, (b) rewards suited to the preferences of the participants in the economy, (c) procedures specifying which behaviors earn how many tokens, (d) description of how tokens can be spent, (e) criteria for getting started, (f) procedures for redefining the rules for reinforcement as desired behaviors are performed as a check-and-balance measurement, and (g) rules for moving away from the token system and/or modifying the token system if the teacher so desires while maintaining the participants' desired behaviors (Walker, H. M., & Buckley, 1974).

In residential treatment settings a token system is a fundamental component of the rehabilitative program for patients. The token economy was developed to simulate the patients' environment outside of the rehabilitative program. For example, patients have the opportunity to earn tokens that can be exchanged for rewards of value to them. The rewards are vital and should always be of value to the participants. Tokens are given contingently; that is, they are distributed when the desired behavior is performed and strengthened when the desired behavior is not performed (Walker, H. M., & Buckley, 1974).

Use of token economies and experiential learning instructional strategies such as E-Bucks, a simulated classroom economy, forms a controversial concept in education because some educational literature suggests that external locus of control negates and/or limits the development of internal locus of control.

In contrast, a token economy in an educational setting is more likely to be a classroom management tool that may be a temporary procedure. For example, token economies are often implemented in the educational environment to motivate students in the traditional classroom, to connect with students, to educate special needs students, or to assist students with academic and behavior problems that influence their ability to learn effectively. Therefore, in the educational setting, the token economy is established to motivate students who are not internally motivated to learn. The literature reveals that the primary goal of the token economy is to improve student achievement and learning in the classroom setting. The token economy is a tool that can be used to educate and inspire at-risk and struggling students (Walker, H. M., & Buckley, 1974).

Student Grades

Student achievement literature reveals that “the classroom learning environment influences student learning” (Walker, C., & Greene, 2009, p. 465). Educational literature suggests that the following variables influence student achievement directly: (a) student commitment, (b) parental support, and (c) highly qualified teachers (Roby, 2004). A significant body of both theoretical and experimental research exists on school performance and school effectiveness. Researchers have found “evidence for a positive relationship between learning goals and productive achievement behaviors” (Self-Brown & Matthew, 2003, p. 106). Much of the student achievement literature focuses on the developing strategies that encourage students to become personally involved in their education via the classroom environment. Connecting with students in the

classroom is vital to student achievement because daily interaction with teachers and other students encourages learning.

Student achievement is closely related to a “sense of efficacy” in students and teachers because student achievement in most situations requires a collaborative effort (Hoy, Tarter, & Hoy, 2006, p. 428). Some educational research suggests that, for students to excel academically, they must believe in their capacity and ability to achieve; teachers must believe in the students’ potential to meet high academic expectations (Hoy et al., 2006).

Hawley, Rosenholtz, Goodstein, and Hasselbring (1984) found that school leaders influence student achievement in four general categories: (a) identify, create, and reinforce school goals; (b) ensure the hiring of highly qualified teachers and provide ongoing professional development opportunities for staff; (c) develop and maintain a school environment that fosters collaborative teaching and learning, and (d) motivate teachers and staff to inspire their students (p. 54).

In the Hawley et al. study (1984), student achievement and academic success were based on encouragement and support by a community of stakeholders, including students, parents, teachers, staff, and school leaders. All stakeholders have the ability to impact the educational experience of students, which directly impacts students in their learning communities. According to Engstrom and Tinto (2008), addressing the idea of students obtaining access to educational experiences revealed that students who participated in their “learning community programs were more apt to persist to the following academic year than their institutional peers” (p. 47) because they were vested in their educational

experience. Thus, the learning community and/or environment can impact student achievement.

Another dimension of student achievement is creating an “optimal experience” for a student through an activity that is rewarding by providing an opportunity for the student to believe they he or she has “accomplished skills” (Schweinle, Meyer, & Turner, 2006, p. 272). An “optimal experience” is a form of *flow theory*, which has not gone unchallenged because the foundation of flow theory suggests that “students do not necessarily value optimally challenging tasks, but rather, tasks in which they believe they can succeed” (Schweinle et al., 2006, p. 272). Moreover, according to flow theory, a student’s perception of achieving success is a strong indicator of student achievement.

Paying students for grades is controversial because some believe that earning a good grade should be the only reward. However, multiple states have implemented programs that “pay” students for grades. Baltimore schools pledged to give “\$110” to all students who raised their test scores on state graduation exams (Toppo, 2008). In seven states (Arkansas, Alabama, Connecticut, Kentucky, Massachusetts, Virginia, and Washington), Exxon/Mobil provided grants to pay each student \$100 for passing advanced placement (AP) college-preparatory examinations. The purpose of the seven state programs was to get low-income and minority students to enroll in AP courses. The study was modeled after a similar Dallas program that had effectively increased enrollment in AP courses. Paying students for grades has been compared to “giving them steroids,” which is an extreme comparison because it implies that incentives are detrimental (Toppo, 2008, p. 2).

The educational literature discussing the trend of paying students for grades is mixed. One study by Johns Hopkins University found that “paying students for grades and attendance seemed to improve both among low-achieving students” (as cited in Pulliam-Weston, 2010, pp. 2-3). However, the incentive might work only with students who struggle academically. Students who tend to struggle academically may need additional motivation to challenge themselves.

A study in New York City with 59 high-poverty schools that paid students various amounts based on grade level for good performance on assessments improved their scores over the previous year’s state tests by more than average (Magee & Gonen, 2009). For example, seventh-grade students scored 37.3 points higher than in the previous year.

Paying students for grades is one way to decrease poverty because, when students begin to make the connection between work and incentives in a way similar to that of adults, they may begin to view their education as an opportunity for success in life (Wolpin, 2007). Also, programs that provide rewards for grades can give students who struggle academically “an extra push” that they need to do well in school (Parry, 2009, p. 1). According to Vine-Singer (2008), educational literature concerning paying students for grades is complex, and monetary incentives have been found to improve grades in some studies but not in others.

Student Absences

Student achievement is negatively affected by absenteeism because students are not exposed to the curriculum when they do not attend school (Roby, 2004). Student achievement tends to “decrease when student absences increase: (Gump, 2004, p. 50); therefore, absenteeism is a serious concern for schools that

must be addressed. Student absenteeism and dropout rates are significantly related to reduced levels of social participation by students in a cooperative classroom learning environment (McNeal, 1995). Student absenteeism is also referred to as *truancy*, which has been defined as “absence from school for no legitimate reason” (Darmody, Smyth, & McCoy, 2008, p. 359).

Literature reveals that when students are involved, they are more connected to school and tend to possess a sense of belonging to school. Therefore, student disengagement impacts the likelihood that they will drop out of school (Organization for Economic Co-Operation and Development, 2000). Student attendance “not only affects individual students but also can affect the learning environment of the entire school” (Epstein & Sheldon, 2002, p. 308). Connecting to students in and out of the classroom is vital to creating meaningful educational experiences for all students. Student absenteeism is harmful to the education process and “disturbs the dynamic teaching-learning environment and adversely affects the overall well-being of classes” (Devadoss & Foltz, 1996, p. 499). Therefore, teachers, schools, and districts should utilize pedagogical strategies that decrease the number of absences.

Student attendance is essential to student achievement. In contrast, educational literature reveals that truancy is related to delinquent activity (Baker, Sigmon, & Nugent, 2001). Absenteeism has become a serious problem in education and requires interventions to reduce truancy. All stakeholders benefit when students stay in school and graduate rather than drop out (Alliance for Excellent Education, 2007). Educational literature revealed multiple factors that affect student attendance in urban high schools, such as (a) health issues, (b)

financial obligations, (c) alcohol and drug use, (d) lack of community/family support, (e) unsupportive school environment, and (f) transportation problems (Jacobs & Kritsonis, 2007).

One study revealed that interventions that have been attempted have included verbal praise, written communication regarding attendance, and positive reinforcements (Gump, 2004). However, students continue to miss classes for various reasons within their control. Gump reported the following possible rationales for student absences: (a) weather, (b) health, (c) preparedness, (d) preoccupation, (e) inconvenience, and (f) personal choice.

Reid (2008) found that students who did not attend school regularly tended to have low self-esteem and disrupted the learning environment with undesired behaviors. Consistent student absences result in fewer learning opportunities and eventual challenges to quality of life (Darmody et al., 2008).

Memphis City Schools (2008) conducted a study of methods to improve student achievement focused on rewards such as Socket Mobile and Plasco ID. The student attendance intervention established by Socket Mobile (a company that produces hand-held computers) and Plasco ID (a company that sells photo identification products) in Memphis provided a tracking system that monitored student records and violations by printing tardy slips for students on the spot. It was reported that the tracking system decreased the number of tardies and increased student learning time.

A study of African American male students found that, of the “students truant from elementary and high school, 75% did not graduate” (Roby, 2004,

p. 4). When students have excessive absences, they tend to be more likely to drop out of school, which is a life-altering decision.

According to data from the 1979 youth cohort of the National Longitudinal Surveys of Labor Market Experience, “A sample of White males that did not graduate from high school” reported that one reason for their nonattendance was that they “didn’t like school” (Eckstein & Wolpin, 1999, p. 1295). Student nonattendance is influenced by the student’s relationship to the school and perception of the educational experience. The student’s “motivation has a strong positive effect on student attendance” (Devadoss & Foltz, 1996, p. 503).

A study of seven local education authorities (LEAs) in England concluded that the “causes of truancy and non-attendance are complex” and that multiple variables contribute to student truancy (Reid, 2008, p. 346). The study found that the causes of truancy included a combination of variables such as school, home, and poor decision making.

A 2003 study of Grade 8 and Grade 10 students conducted by Monitoring the Future (MTF) revealed that the “negative effect of truancy persists past adolescence, predicting poor adult outcomes, including violence, marital instability, job instability, adult criminality, and incarceration” (Henry, 2007, p. 30). However, the study suggested that “family interventions may play an important role in preventing truancy” (p. 34).

Student Tardiness

Educational literature has revealed a lack of studies addressing the impact of tardiness on student grades. Tardiness is a result of numerous factors, such as lack of student-teacher relationship, student unpreparedness, administration

communication regarding student tardiness, and family issues and/or disruptions (Lincoln Public Schools Department of Student Services, 2005). Causes of student tardiness and absenteeism are closely related, and both impact student achievement. The definition of tardiness is not consistent among teachers, schools, and districts; an inconsistent definition presents multiple issues regarding collection of data on student tardiness. However, schools continue to face student tardiness on a daily basis because many students arrive to school late due to numerous reasons.

A study examining a freshman academy experience at Garden City High School, a large diverse school located in southwest Kansas during the academic year 2002-2003 showed that the freshman academy “produced no measurable impact on tardies” but identified “student absenteeism and tardiness as factors contributing to unsuccessful transition to high school” (Schwatken-Springer, 2004, p. 126). That study suggests that student tardiness can contribute to ninth-grade students not doing well academically in their first year in high school. The high school transition is a challenge for students, and coming to class on time is essential for students to build skills that are needed for academic success.

A qualitative study conducted by Farrar (2010) in a middle school at Cambridge College in Massachusetts investigated social, economic, emotional, medical, and psychological variables that contributed to student tardiness and found that student tardiness was strongly related to emotional and social problems. According to Farrar, “Students desire opportunities to socialize” (p. 65), which impacts their coming to class on time because they want to

maintain relationships with peers. The need for students to socialize with peers between classes influenced their late arrival to class.

A study about school crime and safety conducted by the National Center for Educational Statistics (NCES) in 2007, which asked teachers about student misbehavior and student tardiness, found that “31% of teachers agreed or strongly agreed that student tardiness interfered with their teaching” (as cited in Farrar, 2010, p. 6). When students arrive late to class, they can disrupt the learning environment and distract other students. Student tardiness impacts the school environment and culture in a negative way because students who come to class late tend to send a message to teachers and peers that school is not important and that they do not respect the educational system. When students are late for class, they miss valuable information that is needed for their education.

Instructional time is valuable and, when students are tardy to class, they impact the school environment because students who are late to class tend to be “involved in delinquent behavior in unsupervised areas of the school” (Farrar, 2010, p. 7). Students must always be supervised for their protection, as well as for the protection of others.

Educational literature reports that student tardiness is “closely related to other behaviors associated with school avoidance behaviors” (Farrar, 2010, p. 7). School avoidance behaviors include tardiness, absenteeism, and truancy. All of these behaviors tend to be problematic for all stakeholders. Keeping students in school is essential, and encouraging students to attend school on time requires student engagement. Farrar (2010) concluded that “a positive relationship between teachers and students did make a difference in the students’ decision-

making process to attend school” (p. 36). Teachers must make an attempt to build relationships with students so that all students will be successful.

Student Motivation

Research reveals that students’ motivation “declines as they progress from elementary school through high school” (Unrau & Schlackman, 2006, p. 82). A decline in student motivation is significant and important to student achievement.

A review of the literature identifies gaps in the existing body of knowledge related to the advantages and disadvantages of intrinsic and extrinsic motivation. *Intrinsic motivation* is defined as an “individual’s personal interest in a topic or activity and is satisfied through the pursuit of that topic or activity”; *extrinsic motivation* is defined as “participation in an activity, not for its own sake, but for rewards or the release from some external social demand” (Unrau & Schlackman, 2006, p. 81).

A majority of research on student motivation strongly suggests that extrinsic motivation “undermines intrinsic motivation” from developing (Unrau & Schlackman, 2006, p. 81). In addition, some of the educational literature that is against extrinsic motivation reports the impact of rewards on elementary students and not high school students. High school students are older and tend to respond to incentives and/or rewards in a similar fashion as adults respond to working for pay. However, recent studies suggest that “some forms of extrinsic motivation may become internalized and ‘owned’ by the student” (Unrau & Schlackman, 2006, p. 81). Therefore, experiential learning activities such as E-Bucks can encourage students who are not intrinsically motivated by using extrinsic motivation strategies.

One study provides insight into forms of extrinsic motivation that range from “motivation in persons who are less self-determined to motivation in those who are potentially high in self-determination” (Unrau & Schlackman, 2006, p. 82). *Self-determination theory* provides a “research-based perspective of motivation related to school and literacy growth” (p. 81). One of the common threads of research concerning student motivation is that the “student’s perception of the classroom or social environment impacts the student’s behavior and achievement” (Walker, C., & Greene, 2009, p. 463). When students are connected to their curriculum and simultaneously involved in their learning environment, they may be more engaged and may achieve more.

Summary

This literature review discusses the findings in literature that support experiential learning as an effective instructional practice. The literature review presents the purpose and rationale for the implementation of experiential learning activities in education and a semester-long activity entitled E-Bucks, a simulated economy, for business students at the secondary level.

Experiential learning is an effort to connect the classroom with the real world. Simulations support the classroom through extending students’ educational experiences beyond the four walls in multiple ways, such as role play, collaborative group activities, online learning, and virtual communities. Token economies are experiential instructional strategies designed to address classroom management concerns and student motivation. Student achievement and grades are closely related to student attendance because, when students do not attend school, they miss valuable instructional time. Student absenteeism is a serious

concern for schools and requires a collaborative effort by all stakeholders to decrease student absenteeism. The definition of student tardiness is not consistent among teachers, schools, and school districts. Student tardiness is harmful to the learning process because, when students arrive to class late, they impact the learning environment in a negative manner. Motivation is an important factor in student achievement; adolescents respond positively to external incentives to learn in a similar way that adults respond to working for pay.

CHAPTER 3

RESEARCH DESIGN

The research design utilized statistical analysis of archival grade and attendance data for classes that used the E-Bucks simulation and in the nonequivalent control group. The nonequivalent control group design measured archival data from multiple groups over several periods (terms/occasions) of measurement. The nonequivalent control group design was selected for this study because random assignment to control groups was logistically not an option for the teachers involved. Nonequivalent control group design is quasi-experimental research and is similar to experimental research because it has a control and treatment group; however, the participants are not randomly assigned to treatments (Charles, 1998).

Student achievement, student absenteeism, and student tardiness are constant concerns in the public school system. The major goal of this study was to measure the impact of E-Bucks on these three variables. Thus, the study compared the dependent variable (grades attendance, and tardies) and the independent variables (classes using E-Bucks and the previous year's classes prior to the E-Bucks implementation).

Background of E-Bucks

The E-Bucks simulated classroom economy, an innovative experiential learning instructional strategy, was developed at two large urban high schools in Arizona and was implemented in 15 marketing, entrepreneurship, computer applications, and cooperative education classes over a 4-year period. This semester-long experiential learning activity is designed for business students at

the secondary level. The E-Bucks simulation has also been implemented in courses at the postsecondary level, and instructors observed positive outcomes regarding student grades and attendance. This simulation has been successful and is currently being expanded to involve additional teachers (see Appendix A).

As discussed in Chapter 2, students should have the opportunity to be engaged in authentic and creative learning activities that are connected to the real world of problem solving (Kraft, 2005). Students may increase their motivation and commitment by participating in experiential learning activities such as the E-Bucks Simulated Economy (Lee, 2003). The E-Bucks Simulated Economy is a strategy for implementing experiential learning in the classroom because the simulated activity allows students to experience hands-on business practices that build transferable skills (Anselmi & Frankel, 2004). The vision of E-Bucks, a simulated classroom economy, is twofold: (a) increase student grades and decrease absences and tardiness, and (b) increase the economic real-world understanding of business students.

Research Perspective

This study involved archival research. Archival research methodology is concerned with (a) examination of historical documents and (b) examination of recorded data that are analyzed ex post facto (Jenkins, 1985). Archival research involves analyzing studies conducted by other researchers or by examining historical records. Advantages of archival research include the following factors: (a) Experimenter-induced influences on subjects are eliminated, and (b) archival data typically are robust to illustrate trends, correlations, and results (Van Wagner, 2009). Archival research has the following disadvantages: (a) The

researcher has little discretion in data collection methodologies, (b) data may not be available for the study period of interest, and (c) the quality of the data may be compromised or questionable, depending on the source of the data (Van Wagner, 2009).

Research Questions

This study addressed the following research questions.

1. How did mean term grades in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

2. How did the mean number of student absences in business classes that included the E-Bucks simulated classroom economy compare those in similar classes prior to the E-Bucks implementation?

3. How did the mean number of student tardies in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

District and School Demographics

Three of the 11 comprehensive high schools in the urban school district participated in this study. All of the schools were located in Phoenix, Arizona. The urban school district consists of 16 high schools for Grades 9-12, including comprehensive, alternative, and small high schools. The high school average enrollment in the district from 2007 to 2010 was approximately 25,000 students per year. The aggregate number of students by ethnicity as reported by the district is shown in Table 1. Graduation, dropout, and attendance rates for the participating schools are shown in Table 2.

Table 1

District and School Demographics Academic Year 2010-2011 (Percentages)

	Hispanic	African American	Anglo	Native American	Asian
School 1	69.4	19.0	5.5	3.1	3.0
School 2	94.0	1.5	3.2	-8	0.5
School 3	78.3	7.6	6.1	2.2	5.7
Combined	78.4	10.0	6.0	3.2	2.4

Table 2

Graduation, Dropout, and Attendance Rates for the District and Schools, 2009-2010 (Percentages)

	Graduation	Dropout	Attendance
School 1	82.8	2.6	97.9
School 2	75.4	1.4	98.5
School 3	76.5	1.3	98.2
Combined	78.4	3.1	98.0

Study Description

Four teachers from three urban schools agreed to participate in the study. All of the teachers had more than 3 years of teaching experience; one had more than 20 years of teaching experience. All of the teachers in the study had prior work experience in business, marketing and technology industries. The teachers involved volunteered to implement the E-Bucks token economy after learning

about the strategy when attending various business education conferences in Arizona. These teachers taught 22 business classes with 568 students in Grades 9 through 12.

The students in this study reflected the school and district demographics presented in Table 1. The students involved in this study were enrolled in elective business courses during academic years 2007-2008, 2008-2009, and 2009-2010. The schools and district granted permission to the researcher to use only archival data from EGP with nonidentifiable student information.

Research Design

The teachers who implemented the E-Bucks instructional strategy gave permission for the researcher to examine and analyze their EGP student management system records to determine whether the simulation had improved student attendance and overall grades. The EGP records that were examined did not include any information that could identify students. The attendance and tardy reports generated by the EGP had all personal student information recoded to protect students and to uphold all regulations of the FERPA. The archival data collected and analyzed included the mean term grades in business courses, mean number of student absences and tardiness in the E-Bucks courses. No data were used that identified the names of the students, teachers, or schools. The SPSS data analysis compared the data for the year in which the teachers used the E-Bucks simulation to corresponding data from the same teachers' classes during the previous year, before the E-Bucks simulation was implemented.

Data were analyzed only in the aggregate to ensure that all student information was kept confidential and protected. Data analysis included term

grades in business courses, student absences, and tardiness, using analysis of variance (ANOVA). The teacher effect was not a component of the analysis because classes were not aggregated due to different times of the program implementation and other confounding variables. In the analysis, the researcher grouped teachers by when they implemented the E-Bucks simulation and examined only the dependent variables (grades, absences, and tardies). After the research was completed, all records of collected information were shredded.

Data Collection

All three school principals involved granted permission for the study. After receiving permission from each of the site principals, approval from the school district was obtained. Permission from the ASU Institutional Review Board (IRB) was secured (Appendix B).

The teachers who were currently using E-Bucks agreed to allow analysis of their EGP records for the past eight semesters to determine whether E-Bucks had improved the mean term grades in business courses, mean number of absences, and mean number of tardies. The EGP student data and record management system did not include information that identified students' names. The attendance and tardy reports generated by the EGP report had all personal student information blacked out to protect students and to meet all FERPA requirements. The data were coded so that all student, teacher, and school district information was blacked out and kept confidential to protect all stakeholders and uphold FERPA requirements. The only information examined was student term grades in business courses, number of absences, and number of tardies. Four teachers from three urban high schools agreed to participate in the study. The

researcher's classes were not used in the study to ensure objectivity. Originally, this study had 40 sections of business and technology courses and 1,100 students; however, due to incomplete records, only 22 business sections and 568 students were included in the analysis. The data from 22 class sections of the business courses involved in the study (Business Computer Applications [BCA], Marketing, and Business Management Administrative Services [BMAS courses]) were analyzed using ANOVA. For three teachers, data were examined before and after the E-Bucks programs was implemented, comparing similar terms and semesters. The analysis compared similar 6-week and 9-week terms (spring/spring or fall/fall) using ANOVA. Teacher 4 had no control group (without E-Bucks) but was included in a separate analysis with Teacher 3 that examined the effects of "paying" students for grades.

Possible Inferences from the Study

Increased student achievement and attendance evident after evaluating the EGP records of the teachers involved in the implementation of E-Bucks, a simulated classroom economy, as well as increased awareness and acceptance of using an experiential learning strategy such as E-Bucks to motivate and engage students in multiple classrooms. This study might suggest that school districts should provide professional development opportunities for teachers to learn about experiential learning strategies such as E-Bucks to increase student engagement, improve grades, and decrease student absences and tardiness.

Description of the E-Bucks Simulated Classroom Economy

The E-Bucks simulated classroom economy is an innovative experiential learning strategy that was developed at two large urban high schools in Arizona

and implemented by the researcher in 15 marketing, entrepreneurship, computer applications, and cooperative education classes over a 4-year period.

The E-Bucks simulation has allowed students to experience hands-on business practices by creating “task-focused” opportunities for all students to participate in class on a daily basis. E-Bucks is a classroom “token economy” designed to motivate students to learn, increase their classroom engagement, and attendance. Just as adults earn a wage or salary for working in the real world, the E-Bucks simulation compensates students with token rewards for performing various tasks and desired behaviors (e.g., come to class on time, ask higher-level questions, participate in school activities, and engage in peer tutoring; see Appendix C). The simulation helps students to understand how their actions and consequences of those actions relate to concepts learned in the classroom. Furthermore, the E-Bucks simulation fosters and creates a cooperative and goal-oriented environment in the classroom.

E-Bucks Money/Rewards

Students earned E-Bucks, which are play money designed and printed by the business teacher, as rewards for good behavior and achievement. Students redeemed E-Bucks for class privileges and to “buy” small items in the “store” or bid on items such as gift cards donated by local businesses at “auctions” that take place in class each quarter. E-Bucks were printed in various denominations.

E-Disclosure

At the beginning of the year, the teacher distributed copies of an “E-Disclosure” statement that specified the E-Bucks policies and procedures. The teacher explained the E-Disclosure statement to the students and posted it in the

classroom. The E-Disclosure statement included the following policies: (a) Students are individually responsible for storing their E-Bucks; if a student's E-Bucks are lost, stolen, or damaged, he or she becomes bankrupt (forfeits all accumulated E-Bucks); (b) E-Bucks cannot be given or loaned to other students; (c) all E-Bucks must be used by the end of each term and cannot be carried over to the next term; and (d) the teacher may change the E-Disclosure statement at any time.

E-Criteria for Earning Money

Students could earn E-Bucks in a variety of ways that were specified on an E-Bucks Criteria handout (Appendix C). For example, (a) all students could earn 10 E-Bucks a day for being on time to class and in their assigned seats before the bell rings, (b) students who asked higher-level questions of guest speakers could earn E-Bucks per question, (c) students who demonstrated school spirit on Fridays can earn E-Bucks, and (d) students could earn E-Bucks for grades on homework assignments, quizzes, tests, and standardized district-aligned assessments. Two teachers in this study started "paying" students for grades.

E-Balance Sheet

Students were required to keep accurate weekly records of their E-Bucks. The E-Balance Sheet was an assignment that the teacher collected each Friday to ensure accountability in the economy. Students recorded all debits and credits on a daily basis to learn the importance of record keeping. A student who failed to turn in the E-Balance Sheet was fined 40% of net worth for the first violation and became bankrupt (forfeited all earned E-Bucks) on the second violation.

E-Fines

Students were fined E-Bucks for any violation of school policies and classroom procedures, such as coming late to class, chewing gum, wearing a hat, inappropriate language, rudeness, late work, dress code violation, or food or drinks in class. The E-Fine amount was determined by the teacher; the student received successively higher fines for repeated violations and may eventually become bankrupt.

E-Student Roles

During the first 2 weeks of the semester the teacher assumed all duties in the E-Bucks simulation to model the procedures that allowed the system to work properly. After the second week of modeling the E-Buck procedures in class, the teacher “hired” students to perform various duties such as banker, sheriff, insurance agent, auditor, and cashier. Students could not repeat a job for 2 consecutive weeks so that all students would have an opportunity to apply for work. Jobs were posted at the beginning of each week, and students sign up for various positions. Students working in these jobs receive pay consisting of various amounts of E-Bucks paid weekly.

The **banker** stood by the classroom door and paid each student E-Bucks for being on time and sitting in his or her assigned seat. When the last bell rang, the banker returned the remaining money to the teacher and the bank was officially closed. If the banker was absent, no one was paid and the banker was fined for his or her absence.

The **sheriff** was responsible for reporting all rule violations to the teacher on a daily report log. Violations consisted of failure to follow school policies such

as no gum, no hats, no electronic devices, and no food in the classroom. The teacher worked with the sheriff to identify the violators. Based on the sheriff's report, students were fined for each violation. If the sheriff was absent, he or she lost pay.

At the beginning of the semester, the teacher assigned each student to create 10 possible disasters or bonus cards that could occur, with a specific E-Bucks amount of money gained or lost in each disaster. Disasters included events such as floods, automobile accidents, tornadoes, and hurricanes. The **insurance agent** was responsible for selling insurance each week, drawing disasters, recording student debts, and collecting debts from the uninsured or underinsured each day. As an example, the insurance agent might sell natural disaster insurance one week and then offer personal loss insurance the following week. The disasters applied only to rows of students rather than the entire class or a specific individual. The teacher determined how many disasters or bonus cards would be drawn each day on a random basis. For example, Row 1 might experience a tornado that cost each student in that row 50 E-Bucks unless the student had purchased property insurance. The students quickly learned the importance of purchasing insurance. If the insurance agent was absent, he or she lost pay, the teacher drew the cards, and no one was covered by insurance.

The **auditor** was responsible for auditing students whose names were randomly drawn weekly from a bowl. When a student was audited, the auditor closely examined his or her E-Balance sheet and all of the corresponding daily entries. If a student was missing one daily entry, he or she was fined up to 40% of his or her total net worth.

The **cashier** operated the store; this position was “seasonal” and depended on the teacher’s financial resources at various times. The teacher typically opened the classroom “E-Store” on Fridays and sold various merchandise such as pencils, bottled water, stickers, and candy. Profits from the E-Store were used to purchase additional items as prizes or to sell in the store.

E-Real Estate

Students had the option to rent their seats to other students for a maximum of 3 days each week. Rental prices were predetermined by the teacher and posted based on classroom “zip code” areas. For example, the seats closest to the teacher’s desk were the least expensive and the seats farthest from the teacher’s desk were the most expensive. Students were required to pay real estate taxes each semester based on their zip code area. At the beginning of each term or semester the teacher randomly reassigned seats to students; at midterm the teacher randomly assigned different seats to students.

E-Income Taxes

All students had to pay income taxes based on their total E-Bucks each term or quarter. The teacher determined the income tax brackets. For example, a student with a total of 100 or fewer E-Bucks might have to pay 10% income taxes (at the teacher’s discretion), and a student with a total of \$101-\$300 E-Bucks might have to pay 20% income taxes each term.

E-Bucks Rewards

E-Bucks rewards were explained, distributed to all students, and posted in the classroom because students need to make the connection between E-Bucks and the rewards exchanged for desired behavior. Students could purchase various

E-Bucks rewards for privileges such as gaining extra points on an assignment, dropping one low test score per term, or buying out of one homework assignment. The rewards varied in price, and students were required to pay a luxury tax for each reward purchase. For example, the price for allowing a student to drop his or her lowest test score was a specified number of E-Bucks plus a 30% luxury tax (at the teacher's discretion).

E-Auction

At the end of each term students could participate in the E-Bucks auction if their E-Bucks Balance Sheet matched their actual E-Bucks. The teacher determined the E-Buck auction day; if a student was absent, he or she was not allowed to purchase anything. The E-Buck auction took place on a given day during the last week of each term/quarter. The teacher was responsible for purchasing or soliciting items from local businesses for the E-Bucks auction, such as gift cards, college wear, movie tickets, candy, or school supplies. The students were not permitted to carry E-Bucks over to the next term/quarter and had to spend their E-Bucks by either purchasing rewards or auction items. Students participating in the E-Bucks auction signed an auction rules form and held their numbers in the air to bid on items that they were interested in purchasing. Students did not have to pay taxes on E-Buck auction items.

Implementation of E-Bucks

The implementation of the E-Bucks economy began with the participating teachers attending various business education conferences in Arizona to learn about the E-Bucks program and how it operates. The researcher began presenting workshops on E-Bucks at business education conferences in 2005. Two teachers

in the study observed the researcher's classes that implemented the E-Bucks simulation and inquired how they could learn more about using the program in their classes. The participating teachers chose to implement the E-Bucks program in their own classes beginning in 2007, and they continued to use the program. All of the participating teachers decided to implement the simulation in all of their classes because they did not want to exclude any of their students from the E-Bucks experience. At one high school one of the teachers inspired colleagues to implement the E-Bucks program throughout the Business Department through observation of the classes that were using the E-Bucks simulation.

All participating teachers used the E-Bucks handouts (Appendix C) in their classes to implement the program. The researcher encouraged all participating teachers to make the E-Bucks program fit their personal teaching styles, which provided freedom for the teachers to take ownership of the instructional strategy. One of the teachers created an additional E-Bucks student job (Manager) to meet the needs of that classroom. Two of the teachers involved in this study began to "pay" students for grades on their homework assignments, quizzes, tests, and standardized district-aligned assessments.

Procedures

In order to implement and complete the study, the researcher needed permission from the four teachers, letters of approval from three school principals agreeing to participate in the research, and a letter of approval to conduct the study and gather the archival data from the school district involved. This process took more than a year to complete. In addition, the researcher needed approval from Arizona State University (ASU) IRB. The IRB process required 2 months

(see Appendix B). The researcher coded collected data and ensured that all student, teacher, school, and district information was confidential, except for required disclosures of approval needed for the dissertation.

On February 2, 2010, and February 26, 2010, respectively, the researcher's dissertation committee and the ASU IRB approved the proposal for the study (see Appendix B). The purpose of the study was to evaluate the effects of a simulated classroom economy in three schools where the program had been implemented by four secondary business teachers. Four teachers and their classes were studied with three measures for each participating teacher: student grades, student absences, and student tardiness. The study covered a 3-year span and initially included data from more than 1,100 business students in three high schools. Because data for some students were incomplete, data for only 568 students were included in the final analysis.

Data for Teachers 1 and 2 were grouped for analysis and reported in the same table because they had data for the same school year and implemented the E-Bucks treatment in the same term (grading periods). These teachers taught a combination of 9th-grade through 12-th grade students at schools with the same 9-week term course schedule and 1-hour class session. However, data for absences and tardies were not available for Teacher 1 because the teacher left the district shortly after the study. The district changed the student data management system from EGP to another student management system, which prevented teachers from accessing some of the data relevant to the study. In addition, the researcher wanted to compare students consistently in the same grading periods to maintain validity in the study.

Data for Teachers 2 and 3 were grouped for analysis and reported in the same table because both had data for the same school year and implemented the E-Bucks treatment in the same term (first 9-week term for the control group and second 9-week term for the E-Bucks treatment group) in fall 2009. Teachers 2 and 3 taught at the same school when they implemented the E-Bucks program. Teacher 2 taught classes consisting of 9th-grade through 12th-grade students, and Teacher 3 taught only 9th-grade students.

Data for Teachers 3 and 4 were grouped for analysis and reported in the same table because both had data for the same school year (spring 2010 third term for the control group and spring 2010 fourth term for the treatment group). Teachers 3 and 4 were the only teachers who “paid” students for grades. The teachers awarded E-Bucks for grades on assignments, quizzes, and district standardized assessments. Teachers 3 and 4 taught at separate schools with 6-week and 9-week course schedules (grading periods) and 2.5-hour and 52-minute class sessions. Teacher 3 taught only 9th-grade students and Teacher 4 taught only 11th- and 12th-grade students throughout the study.

Data for Teacher 4 were analyzed separately because the teacher taught at a school with a 6-week term (grading period). This teacher had used E-Bucks consistently over the course of 2 academic years, including six 6-week terms. The researcher analyzed this teacher’s data to determine whether significant effects were associated with implementation of E-Bucks over multiple years with the E-Bucks simulation. Also, Teacher 4 data were analyzed with Teacher 3 data when both teachers began to “pay” students for grades. This allowed for one grading period with E-Bucks implementation being the control and one grading period in

the same semester being the treatment with E-Bucks implementation and “paying” students for grades. Teacher 4’s students wrote a reflection of their experience throughout the E-Bucks simulation and used that information to process how E-Bucks was received by the students.

Data Analysis

A nonequivalent design was used to analyze the data. This method was used because the study was an evaluation of existing data from four business teachers who had used the E-Bucks system. The data reflected the period of time in which the teachers had used E-Bucks and the period of time when the same teachers had not used E-Bucks in their classes. The goal was to measure the possible impact of the program on student grades, absences, and tardies. The research grouped and analyzed teachers by similar dates of implementation of the E-Bucks program. The used a combination of school years from 2007-2010. For example, the researcher analyzed teachers in the same semester and grading period for E-Bucks implementation and compared the data to data for similar classes in the previous year.

Three measures for the four teachers and their classes—grades, absences, and tardiness—served as the dependent variables. Two types of ANOVA were used. First, for teachers who used typical teaching methods (designated the control condition) and thereafter the E-Bucks condition for the same students across terms in the same academic year, repeated measures ANOVA was employed. Second, for teachers who employed control conditions in one semester and E-Bucks in the same semester of the succeeding year, a between-subjects ANOVA was employed. The latter analysis is essentially a nonequivalent

comparison of E-Bucks with typical teaching methods, with multiple teachers providing replication of the comparison. The teacher effect was not a component of the analysis because classes were not aggregated due to different times of the E-Bucks implementation and other confounding variables.

The term grades were reported on a 4.00 grade point average (GPA) scale. Data for students of all four teachers were analyzed in like terms and semesters to enhance validity. All of the participating teachers administered District Career and Technical Education Assessments each term. Therefore, assessments were consistent among all teachers involved in the study.

Research Limitations

The study examined archival data from teachers who had implemented the E-Bucks system (the treatment) on their own without being approached by the researcher. Conducting an experiment was not an option because class schedules are determined by administration and logistically the study would not be possible to implement. The study collected data for 1,100 students and more than 40 sections of business, technology, and marketing courses. However, data for only 568 students and 22 sections were included in the analysis due to unreadable and missing data for some classes. Some of the data for Teacher 1 were missing and the researcher could not obtain the data due to Teacher 1 leaving the school district and the elimination of the school district's data management system.

Teacher 2 had a substitute teacher for a period of time in the study due to personal issues; the substitute teacher did not implement the E-Bucks program consistently. The decision to eliminate data related to these two situations was made to ensure validity and reliability of the study.

The researcher did not collect qualitative reflections from the participating teachers and students addressing their E-Bucks experience throughout the simulation. The qualitative reflections could have been valuable to the study and would have added a personal reflection component to the quantitative design of the study.

The nonequivalent control group design provides less control than an experimental design because weakness lies in not randomly assigning participants to treatment, resulting in greater variance. Although the use of nonequivalent groups is an imperfect research design, it is often used in natural settings when random assignment to treatment is not feasible.

CHAPTER 4

FINDINGS AND RESULTS

This chapter presents the results of the study, with findings reported in relation to individual research questions. A summary of all findings is presented at the end of the chapter.

Report on the Research Questions

Research questions 1, 2, and 3 are related to grades, absences, and tardiness, respectively. This investigation provided a number of perspectives from which to address each research question empirically. Table 3 presents a summary of the results of ANOVA. Tables 4 through 7 present the four different empirical perspectives. Thus, within each section treating an individual research question, the results of analyses are represented in these four tables, focusing on the corresponding dependent variable.

Research Question 1

Research question 1 asked, *How did mean term grades in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?*

The results for the term grades shown in Table 4 were statistically significant. The grades reported and analyzed in this study were business class grades only, per participating teacher. All of the teachers in this study administered the same district-aligned and -approved assessments in the same grading period/term sequence. The effect of treatment was statistically significant, $F(1, 114) = 4.80$, Mean Square (MS) = 3.84, $p = .031$. Thus, grades in the E-Bucks condition were highly unlikely to have occurred by chance. The business

Table 3

Summary of the Results of Analysis of Variance of the Data

Variable	Effect	<i>df</i>	SS	Mean ²	<i>F</i> Ratio	Sig. <i>F</i>
Grades	T1/T2	1	3.84	3.84	4.80	.031*
	T2/T3	1	3.16	3.16	4.02	.046*
	T3/T4	1	6.35	6.35	13.63	.168
	T4	1	4.30	4.30	7.72	.008*
Absences	T1/T2	1	258.51	258.51	19.24	.001*
	T2/T3	1	10.97	10.97	1.77	.185
	T3/T4	1	142.12	142.12	7.40	.224
	T4	1	41.85	41.85	11.70	.001*
Tardies	T1/T2	1	4.34	4.34	1.94	.169
	T2/T3	1	29.75	29.75	10.73	.001*
	T3/T4	1	9.69	9.69	0.20	.732
	T4	1	32.80	32.80	25.03	.001*

Note. T = teacher.

**p* < .05.

Table 4

Comparison of Absences, Tardies, and Grades for Students of Teacher 1 and Teacher 2 With Two Levels

Dependent variable Condition Occasion	Absences		Tardies		Grades						
	Teacher 1 Mean	Teacher 2 Mean	Teacher 1 Mean	Teacher 2 Mean	Teacher 1 Mean	Teacher 2 Mean					
Control	First	NA	2.34	2.93	NA	0.76	1.28	3.03	1.33	2.18	1.07
	Second	NA	3.25	2.91	NA	1.41	2.04	2.63	1.30	2.17	1.20
E-Bucks	First	NA	4.10	3.71	NA	0.64	0.90	2.95	1.16	1.52	1.43
	Second	NA	5.68	6.45	NA	0.98	1.51	3.24	1.04	1.57	1.55

Note. For Teacher 1, $N = 57$; for Teacher 2, $N = 59$ throughout. Data on mean absences and tardies were not available for Teacher 1. NA = data not available, Mean = average number, SD = standard deviation.

Table 5

Comparison of Absences, Tardies, and Grades for Students of Teacher 2 and Teacher 3 (Two Occasions)

Dependent variable Condition Occasion	Number of student absences		Number of student tardies		Student grades								
	Teacher 2 Mean	Teacher 3 Mean	Teacher 2 Mean	Teacher 3 Mean	Teacher 2 Mean	Teacher 3 Mean							
Control	First	3.13	3.09	2.47	3.82	2.58	3.28	0.69	1.21	2.02	1.41	3.08	1.10
	Second	4.10	4.30	2.14	2.33	1.60	2.45	1.60	1.30	1.93	1.40	2.38	1.45

Note. For Teacher 2, $N = 168$; for Teacher 3, $N = 86$ throughout. Mean = average number, SD = standard deviation.

Table 6

Comparison of Absences, Tardies, and Grades for Students of Teacher 3 and Teacher 4 (Analysis of Variance)

Dependent variable Condition Occasion	Absences		Tardies		Grades			
	Teacher 3 Mean SD	Teacher 4 Mean SD	Teacher 3 Mean SD	Teacher 4 Mean SD	Teacher 3 Mean SD	Teacher 4 Mean SD		
Control First	9.02	5.77	2.60	2.44	1.92	1.23	2.91	0.69
E-Bucks Second	8.12	3.82	3.05	1.24	2.51	1.21	3.13	0.82

Note. For Teacher 3, $N = 99$; for Teacher 4, $N = 61$ throughout. Mean = average number, SD = standard deviation.

Table 7

Comparison of Absences, Tardies, and Grades by Year for Classes in Treatment Group ($N = 48$)

Variable	Term 1		Term 2		Term 3		Term 4		Term 5		Term 6	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Absences	0.96	1.27	1.21	1.49	1.67	2.14	1.50	1.67	1.64	1.95	2.29	2.20
Tardies	0.17	0.38	0.46	1.10	0.67	1.43	0.93	2.40	1.25	1.45	1.02	1.67
Grades	3.21	0.75	3.36	0.64	2.98	1.10	2.94	1.07	2.74	1.39	3.08	0.97

Note. Mean = average number, SD = standard deviation.

classes included in this study were required to administer standardized district assessments that are reflected in the grades. The mean grades for Teacher 1's students increased in Control 2 from 2.63 to 3.24, a statistically significant increase. In contrast, the mean grades for students of Teacher 2 decreased in Occasion 1 (from 2.18 to 1.52 and decreased in Occasion 2 from 2.17 to 1.57, a statistically significant decrease. Teacher 2 had a substitute for a significant period of time in the study and did not implement E-Bucks consistently, which may have affected the findings. Overall, the changes in term grades for students of Teachers 1 and 2 were statistically significant ($p = .031$) despite the term grade decrease for students of Teacher 2.

As shown in Tables 3 and 5, students of Teachers 2 and 3 showed a statistically significant decrease in term grades, $F(1, 308) = 4.02$, $MS = 3.16$, $p = .046$. Nine-week term grades for students of Teacher 2 and Teacher 3 were significantly less, with a decrease in grades for Teacher 2's students from 2.02 to 1.93 and for Teacher 3's students from 3.08 to 2.38. Overall, term grades for students of Teachers 2 and 3 decreased after E-Bucks was implemented in the business courses.

As shown in Tables 3 and 6, grades for students of Teachers 3 and 4 approached statistical significance, $F(1, 295) = 13.63$, $MS = 6.35$, $p = .168$. Teachers 3 and 4 were the only teachers in the study who paid students E-Bucks for grades (assignments, quizzes, and district standardized assessments). Teachers 3 and 4 had a control group without pay for grades and a treatment group with pay for grades. Grades for students of Teacher 3 increased from 1.92 to 2.31, and grades for students of Teacher 4 increased from 2.91 to 3.13.

As shown in Table 7, the effect of the E-Bucks treatment for Teacher 4 (with no control group) was statistically significant, $F(1, 46) = 7.72$, $MS = 4.30$, $p = .008$. Grades for students of Teacher 4 were mixed, showing both decreases and increases with the E-Bucks program. Teacher 4's grades in terms 1 through 6 were 3.21, 3.36, 2.98, 2.94, 2.74, and 3.08, respectively. However, the data for students of Teacher 4 were analyzed separately (Table 7) because the researcher was able to measure the dependent variables when the E-Bucks program was implemented over multiple consecutive terms and Teacher 4 did not have a control group in Table 7 only.

Research Question 2

Research question 2 asked, *How did the mean number of student absences in business classes that included the E-Bucks simulated classroom economy compare those in similar classes prior to the E-Bucks implementation?*

As shown in Tables 3 and 4, which report descriptive statistics for number of absences for four occasions (four 9-week terms), the effect of treatment was statistically significant, $F(1, 58) = 19.24$, $MS = 258.51$, $p \leq .001$. Teacher 1 was not included in the comparison due to incomplete data. Because Teacher 1 was not included in this comparison, this effect is associated with Teacher 2. For Teacher 2, the mean number of student absences increased with the E-Bucks treatment.

Table 5 reflects two occasions and/or terms of data, including one control and one E-Bucks treatment term (9-week term) for Teacher 2 and Teacher 3. The effect of treatment on absences was not statistically significant, $F(1, 252) = 1.77$, $MS = 10.97$, $p = .185$, and absences in Teacher 2's five classes increased from

3.13 to 4.10 and absences in Teacher 3's classes decreased from 2.47 to 2.14 with the treatment.

As shown in Table 3, which reports descriptive statistics for two occasions (two 9-week terms), the effect of treatment was not statistically significant, $F(1, 252) = 1.77$, $MS = 10.97$, $p = .185$. Teacher 3's mean number of student absences decreased with the E-Bucks treatment and Teacher 2's mean number of student absences increased with the E-Bucks treatment; both changes were statistically significant.

As shown in Tables 3 and 6, which report descriptive statistics for two occasions (two 9-week terms), the effect of treatment was not statistically significant, $F(1, 299) = 7.40$, $MS = 142.12$, $p = .224$. Teacher 3's mean number of student absences decreased from 9.02 to 8.12 with the E-Bucks treatment. For Teacher 4, the mean number of student absences decreased from 5.77 to 3.82 with the E-Bucks treatment. However, absences of students of Teachers 3 and 4 decreased during the term (grading period) in which they were paid for grades; the decrease was not statistically significant.

The analysis shown in Table 7 reflects six occasions (6-week terms with no control group for Teacher 4) with one within-subjects factor (one measure on each of six occasions, each associated with a successive term). Teacher 4 taught in a school that had 6-week terms; data for this teacher were analyzed as a comparison over time. The effect of treatment over multiple terms was statistically significant, $F(1, 47) = 11.70$, $MS = 41.85$, $p < .001$ (Table 3). Table 7 presents a comparison of years in which E-Bucks was implemented. The data

indicated that mean number of absences increased from 0.95 to 2.29 over six terms/occasions.

Research Question 3

Research question 3 asked, *How did the mean number of student tardies in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?*

As shown in Tables 3 and 4, which report descriptive statistics for four occasions, the effect of treatment was not statistically significant, $F(1, 58) = 1.94$, $MS = 4.34$, $p = .169$. For Teacher 2, mean number of student tardies decreased from 0.76 to 0.64 in Term/Occasion 1 and decreased from 1.41 to 0.98 in Term/Occasion 2.

The results shown in Tables 3 and 5 indicate that the effect of treatment regarding tardiness was statistically significant, $F(1, 252) = 10.73$, $MS = 29.75$, $p < .001$. For Teacher 2, mean tardies decreased from 2.57 to 1.60 and for Teacher 3, mean tardies decreased from 0.69 to 0.64.

As shown in Tables 3 and 6, the effect of treatment was not statistically significant for tardies of Teachers 3 and 4, $F(1, 299) = 0.20$, $MS = 9.69$, $p = .732$.

As shown in Tables 3 and 7 (with no control group for Teacher 4), the effect of treatment was statistically significant when comparing six consecutive 6-week terms of the E-Bucks treatment, $F(1, 47) = 25.03$, $MS = 32.80$, $p < .001$. Tardies for Teacher 4's students increased from 0.17 to 1.02 over six 6-week terms/occasions (grading periods).

Summary of Findings

This study of E-Bucks, a simulated classroom economy, was designed to determine whether there was a significant difference in student grades, absences, and tardiness between the grading terms when a teacher used the token economy system E-Bucks and the grading terms when the same teacher did not use the E-Bucks system. The analysis revealed that paying students for grades with E-Bucks approached significance and increased student grades and decreased absences for students when they received pay for grades. Tardies decreased for one of the two teachers who paid students for grades.

The results showed that the effect of treatment was significant regarding student grades for Teachers 1 and 2, and grades for students of Teachers 3 and 4 approached significance during E-Bucks implementation. The study revealed statistical significance regarding absences for Teacher 2; absences increased when E-Bucks was implemented by Teacher 2. However, Teacher 2 had a substitute for a period of time during the study; the substitute did not implement the E-Bucks treatment consistently.

Absences for students of Teacher 3 decreased during E-Bucks implementation. Tardiness for students of Teachers 2 and 3 exhibited a statistically significant effect of treatment. Students of Teacher 4 showed a nonsignificant decrease in the number of tardies during the E-Bucks treatment with pay for grades (Table 6).

The ANOVA revealed that (a) mean grades for Teacher 3 increased from 1.92 to 2.31 and mean grades for Teacher 4 increased from 2.91 to 3.13 with the E-Bucks treatment (approached statistical significance). Thus, the treatment effect

(shown in Table 6) approached statistical significance for grades but was not significant for absences or tardies. (b) mean number of absences for Teacher 3 and Teacher 4 decreased (nonsignificant), (c) mean number of absences for Teacher 4 decreased from 5.77 to 3.82 (nonsignificant), (c) mean number of tardies for Teacher 3 increased from 2.60 to 3.05 (nonsignificant), (d) mean number of tardies for Teacher 4 decreased from 2.44 to 1.24 (nonsignificant),

Data for the E-Bucks condition of treatment were collected in the spring semester, which traditionally has higher absences due to various variables such as family obligations, students moving for work, and student attitude/perception regarding the end of the year. In addition, during the period of time of the treatment, the spread of H1N1 flu affected attendance throughout the district. It was noted that multiple variables could have influenced students' grades, absenteeism, and tardiness, such as the H1N1 flu, socioeconomic status, family responsibilities, and health concerns.

CHAPTER 5
SUMMARY, DISCUSSION, CONCLUSIONS,
AND RECOMMENDATION

Summary

Three research questions were addressed to determine the impact of token economies such E-Bucks, a simulated classroom economy, on student grades, absenteeism, and tardiness:

1. How did mean term grades in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

2. How did the mean number of student absences in business classes that included the E-Bucks simulated classroom economy compare those in similar classes prior to the E-Bucks implementation?

3. How did the mean number of student tardies in business classes that included the E-Bucks simulated classroom economy compare to those in similar classes prior to the E-Bucks implementation?

Four business teachers from the Phoenix Union High School District volunteered to participate in the study. With their assistance, the researcher evaluated the effectiveness of the token economy on the factors student grades, student absences, and student tardies for all of their classes before and after implementing E-Bucks.

Findings

Overall, grades for students of Teacher 1 increased significantly during E-Bucks implementation, while grades for students of Teachers 2 and 3 decreased significantly during E-Bucks implementation. Grades for students of Teachers 3

and 4 increased approached significance when those students were paid for grades during the E-Bucks implementation.

Overall, absences of students of Teacher 2 increased significantly during the E-Bucks treatment and absences of students of Teacher 3 decreased significantly during the treatment. Absences of students of Teachers 3 and 4 showed a nonsignificant decrease when those students were paid for grades

Overall, tardies of students of Teachers 2 and 3 decreased significantly during the E-Bucks treatment. However, results were mixed when students were paid for grades: Tardies of students of Teachers 3 increased and tardies of Teacher 4 decreased during the E-Bucks treatment. The tardy results for Teachers 3 and 4 were nonsignificant.

Discussion and Conclusions

Based on the research findings, it was concluded that token economies and experiential learning instructional strategies such as E-Bucks, a simulated classroom economy, had mixed results regarding an impact on student grades, absences, and tardiness in this study. However, it was concluded that paying students for grades increased grades and approached significance and decreased absences with no statistical significance. Paying students for grades showed mixed results for tardies: One teacher's tardies decreased and the other teacher's tardies increased when students were paid for grades.

This study warrants more in-depth research regarding experiential learning and token economies. However, numerous variables impacted these findings, such as poor health, H1N1 flu, teacher absences, a slow economy, students' financial obligations, transportation problems, and lack of family and community support.

The teachers who participated in the study reported that they observed positive differences in their classes after implementing E-Bucks because they noted improvement in students' class participation and attitudes in class. Teacher 2 observed that his/her classes responded differently to the E-Bucks program when he/she first implemented the program but over time students' interest waned. Teacher 3 observed that his/her students started to come to class on time more because of the E-Bucks program and fewer students used inappropriate language, apparently because of the E-Buck fines. Teacher 4 observed that his/her students appeared more excited about learning and demonstrated a more positive attitude in the classroom. Teacher 4 convinced other teachers at his/her school to implement the E-Bucks program based on changes in student attitude and morale that he/she had noted. In addition, Teacher 4 reported that results of a survey were positive regarding the student experience with E-Bucks.

One of the implications of this study is that token economies such as E-Bucks might impact student grades, student absences, and student tardiness in a positive manner; however, the teacher effect regarding the treatment could influence the implementation of E-Bucks and data collection.

Recommendations

There were two recommendations based on the study: 1) pay E-Bucks to students for short-term and long-term grades which include homework assignments, quizzes, test, projects, and district assessments, and 2) administer the E-Bucks program consistently throughout the grading period by empowering the students to implement the program when their teacher is absent and a substitute is assigned to the classroom (prepare the students to assume the role of banker, sheriff, insurance agent, real-estate agent, and auditor when the teacher is absent).

Additional experiments may be useful in identifying the reasons for the results found in this study, as well as in determining variations of the token economies that would work as well or better. Paying students E-Bucks for grades may lead students to work harder on assignments, quizzes, and assessments. Also, paying students for grades could decrease student absences and tardies when the treatment is applied in a consistent pattern.

The following suggestions are made for further (future) research. Future research could test the economic understanding of students and utilize a National Council for Economic Education Pre-Test and Post-Test. Also, studies could use an experimental design and measure factors such as economic understanding and application of economic principles.

1. Implement the E-Bucks simulated classroom economy with a larger urban student population (including more schools and teachers, different classes, and multiple districts).

2. Conduct a study to examine effort by students when being paid various amounts for grades on assignments, quizzes, tests, and assessments.

3. Examine the teachers' experiences in implementing E-Bucks.
4. Implement a similar E-Bucks study with middle school and/or junior high students.
5. Survey students and teachers to determine factors that influence grades, absences, and tardiness.
6. Examine reasons for tardiness in high schools and identify interventions that address the conflicting definitions of tardiness.
7. Study the effect of paying students for grades on assignments, quizzes, and assessments, utilizing a control group.

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APPENDIX A
REFLECTIONS

Reflections

This doctoral research experience has been enlightening and life altering. The personalized nature of the doctoral process has given me the opportunity to develop an individualized educational and professional development plan that will benefit me throughout my life on many levels. Research is powerful and beneficial to the continual development of the society of learners.

Education-focused research is crucial because the needs of the consumers of educational services are constantly changing; to meet the needs of these consumers, educators must be life-long learners. I value this experience and plan to use the skills that I have learned to support the next generation of educators. I plan to continue to research experiential learning, token economies, student absenteeism, student tardiness, and student motivation because I believe that each area is important to education.


As an 8-year secondary educator who has taught in suburban and urban school districts, I believe that all students can learn when they have equal access to a quality education, which encompasses highly qualified teachers, rigorous and relevant curriculum, active parental and/or community involvement, competitive academic, appropriate resources, and a safe school environment. However, I understand that, unfortunately, all students do not have equal access to a quality education. Therefore, I am determined to do my part in providing a quality education for all students. As educators we CAN work together to close the achievement gap with dedication and a commitment to excellence! In addition, I plan to challenge every student daily through experiential learning activities that connect the real-world to the standard-based curriculum.

I believe that building healthy relationships with students is important. When students feel that they are important and their teachers care about them, they tend to work harder and push themselves more. My teaching style and educational philosophy focuses on inspiring greatness in the lives of others.

APPENDIX B
APPROVAL OF EXEMPT STATUS, ASU

Office of Research Integrity and Assurance

To: Martha Rader
ED

From: Mark Roosa, Chair 
Soc Beh IRB

Date: 02/26/2010

Committee Action: Exemption Granted

IRB Action Date: 02/26/2010

IRB Protocol #: 1002004842

Study Title: Evaluation of E-Bucks Stimulated Classroom Economy with High School Students

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(1).

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.

APPENDIX C
HANDOUTS AND EXAMPLES

E-Bucks Criteria

Bank of E-Entrepreneurship

Teacher

Important Message:

(Each student is responsible for protecting their E-Bucks earned in class. Therefore, if a student loses their E-Bucks their E-Bucks will not be replaced by the Bank of E.

*Students will be PAID DAILY for being on time and sitting in their assigned seats! However, the teacher can change PAY DAYS to FRIDAYS (listen for announcements regarding PAY DAY changes). YOU MUST BE PRESENT TO GET PAID (School Related Absences are the ONLY EXCEPTION and Medical Related Absences with note from Parent/Guardian)! Students are required to keep accurate records on their E-Bucks Balance Sheet to receive their PAY DAY E-BUCKS as well!

Criteria to Earn E-Bucks on a Daily Basis:

E-BUCK AMOUNT	TASK
\$10	Being in the classroom before the Tardy Bell
\$75-A, \$50-B, \$30-C	Unit or Chapter Test
\$150-A, \$90-B, \$40	Term Test
\$100-A, \$50-B, \$25-C	Individual or Group Project
\$300-A, \$ 150-B, \$75-C	District Assessment
\$10	Maintaining an organized Binder. Random Audits.
\$5 (per question)	Post student created Unit/Chapter questions on Shout Out Board (must be posted before the bell rings).
\$30 (per confirmed Guest Speaker)	Work with teacher to schedule appropriate class Guest Speaker (up to six Guest Speakers per class).
\$20	Create Unit/Chapter poster for classroom display and 60 second oral presentation to the class.
\$20	Student appropriate participation in school Spirit Days and Professional Dress Wednesday (See teacher for more information).
\$500	Zero tardies per specified period (see teacher for dates- ENTIRE TERM/QUARTER)
\$20	60 second class presentation Topic-Interesting Current Event/Business Articles for Friday Activity
\$10 per assignment	Pass Back Work to Peers
\$10 per hour of Volunteer Work	Volunteer hours must be verified and Volunteer form needs to be completed (See teacher for form).
\$10 per student you assist	Be a Peer Tutor in Class-Keep records of the students you help and how you helped them (See teacher for form).
\$10 per class	Take Cornell Notes in Class

\$10	Assignments/Class work turned in on time as specified by teacher.
\$100	Parent Participation at Curriculum Night.
\$50	Participation in Business Charity Activities
\$30	Creation of class or club Logo and Reasoning.
\$50	Winner of Logo Contest.
\$30 per student	E-Networking-Recruitment of potential E-student (Three students must locate teacher-)
\$30	Creation of Personal Business Cards (Name, address, email, phone, class hour, teacher, Business Idea, Business logo).
\$100	Banker-Student must be present to get paid the full amount! Duties-Pay each student for being on time to class every day. Cut money for teacher
\$150	Sheriff-Student must be present to get paid the full amount. Duties-Complete a Sheriff's report of students who commit violations in class. Post the fines on board and collect fines.
\$150	Auditor- Student must be present to get paid the full amount. Duties-Randomly Audit students (consult with teacher to determine student who will be audited). Collect fines for inaccurate records and turn all money into the teacher.
\$150	Realtor- Student must be present to get paid the full amount. Duties-Collect property tax from tenants every two weeks and rent spaces (seats) to students (see teacher for price listings).
\$150	Insurance Agent- Student must be present to get paid the full amount. Duties-Sell insurance to class on Mondays (consult with teacher for coverage price and policy). Draw daily/weekly disasters from class disaster box and collect fines from students who are not covered by insurance policy.
\$\$\$\$\$	More E-Buck Opportunities will be posted throughout the semester!



E-Bucks Disclosure Statement

1. **E-Bucks are Your Responsibility!**
2. ***Bank of E* is NOT Responsible for E-Bucks that are LOST or STOLEN.**
3. **You must keep accurate records of your E-Bucks. All E-Buck debits and credits MUST be recorded on the E-Bucks Balance Sheet. All students are required to turn in their E-Bucks Balance Sheet on Fridays. Students who do not turn their E-Bucks Balance Sheet on Fridays will be bankrupt the following week or fined 40% of their total balance (determined by teacher ONLY). Excused absences will be dealt with on an individual basis. The E-Bucks Balance Sheet will be provided by the teacher.**
4. **E-Bucks cannot be GIFTED or LOANED TO OTHER STUDENTS. Students who do not follow guidelines will be bankrupted for the ENTIRE YEAR!**
5. **E-Bucks MUST be used by the END of term/quarter they were earned in otherwise they are worthless (E-Bucks cannot be carried over to the next term/quarter).**
6. **Students can apply for jobs/positions selected by teacher every week (Manager, Banker, Insurance Agent, Auditor, Sheriff, Realtor, etc.). Salary for each position and job description will posted by the teacher. Students cannot repeat the same job two weeks in a row except for Manager and/with Teacher approval.**
7. **Insurance will be sold on MONDAYS only. If you are absent on a Monday you cannot purchase insurance for that week.**
8. **Disasters will be drawn daily or at the end of the week, the teacher will decide.**
9. **Teacher may change Disclosure Statement at anytime.**
10. **Student Entrepreneurial Proposals (If you would like to create a company) MUST be approved by the Instructor.**

This E-Bucks Disclosure Statement was brought to you by the Bank of E.

**Thank you for your cooperation!
E-BUCKS BALANCE WORKSHEET
Due Every FRIDAY-No Excuses!**

Student Name: _____ Class: _____ Per. ____

Important Note:

****YOU WILL BE FINED 40% of YOUR TOTAL BALANCE IF YOUR RECORDS ARE NOT ACCURATE DAILY!!**

Date	Description of Transaction	Payment/Debit (-)	Deposit/Credit (+)	Balance (\$)

E-Buck Insurance Policy Schedule

Type of Coverage	Price	Term of Policy *Insurance is ONLY for ONE WEEK!!!
Natural Disasters (Earthquake, Tornado, etc.)	\$ 10.00	Second Week of School
Personal Loss (Covers ANYTHING that Fines the individual student who purchased the policy)	<u>\$20.00</u>	<u>3rd Week of School</u>
Fire and Theft	\$30.00	4 th Week of School
Car Accident and Personal Loss	\$40.00	5 th Week of School
Natural Disasters and Personal Loss	\$60.00	6 th Week of School
Fire, Theft, and Car Accident Insurance	\$70.00	7 th Week of School
Flood and Personal Loss	\$80.00	8 th Week of School
Natural Disasters	\$100.00	9 th Week of School
Repeat Insurance Sequence Each Week. The Teacher Can Always Change Prices!		

\$10.00	<u>\$10.00</u>	President <i>Waggoner Ms.</i> WCCHS11YRS201001	E-Bucks
Bank of w			0000000054279
\$10.00	<u>\$10.00</u>	President <i>Waggoner Ms.</i> WCCHS11YRS201001	E-Bucks
Bank of w			0000000054279
\$10.00	<u>\$10.00</u>	President <i>Waggoner Ms.</i> WCCHS11YRS201001	E-Bucks
Bank of w			0000000054279
\$10.00	<u>\$10.00</u>	President <i>Waggoner Ms.</i> WCCHS11YRS201001	E-Bucks
Bank of w			0000000054279

BANK OF E

E-Buck Bank



BANKING HOURS

MONDAY-FRIDAY

7:30-3:00

SATURDAY

CLOSED

SUNDAY

CLOSED

ALL BANKING HOURS ARE SUBJECT TO CHANGE PER PRESIDENT AND TRUSTEE BOARD.

THANK YOU

E-Bucks!
E-Reward Program

E-Buck Amount	E-Rewards
\$250	Guest Speaker Thank you Letter
\$550	Drop Lowest Test Score For a Specified Quarter (see teacher for more details).
\$200	Buy Back Points (Late Assignments-only one assignment per quarter)
\$150	Class work/Worksheet/Current Event (Buy out of an assignment-two per quarter)
\$300	Extra Points (25 points) Limit (one per quarter)
\$300	Four additional Bathroom Pass (one per quarter)
\$250	Individual Presentation (see teacher for more details-one per quarter)
\$\$\$\$	More E-Rewards will be posted throughout the semester!

Important Message:

All rewards require a 30% luxury tax!

**E-Economy
Job Sign Up Sheet**

THIS IS FOR A ONE WEEK POSITION.

DATE/WEEK:	STUDENT NAME:	JOB	CLASS/PERIOD

E-Buck Rental Procedures and Prices



- 1. Students can ONLY rent his or her seat out to another student for a MAX of THREE TIMES a WEEK!**
- 2. Prices are determined by TEACHER ONLY!!**
- 3. Students are still responsible for the damages incurred by their property.**
- 4. Remember Property Taxes will need to be paid by the OWNERS of the property ONLY. Renters are not responsible for Property Taxes.**
- 5. When you have located a RENTER, notify the teacher of the transaction. The class Realtor will create a lease agreement/contract for the transaction which discloses price, seat location, rental dates, and signature of both parties involved.**
- 6. Students who rent their seats will earn All of money from the transaction.**
- 7. YOU MUST KEEP ALL RECEIPTS FOR AUDITING PURPOSES 😊**

E-Buck RENTAL PRICES



Row 1	\$20.00
Row 2	\$30.00
Row 3	\$40.00
Row 4	\$50.00
Row 5	\$60.00
Row 6	\$80.00

E-Bucks REAL ESTATE ZIP CODES

Property Tax Schedule

Pay the Realtor every 2 weeks!



■	ROW 1	85400	\$10.00
■	ROW 2	85500	\$20.00
■	ROW 3	85600	\$30.00
■	ROW 4	85700	\$40.00
■	ROW 5	85800	\$50.00
■	ROW 6	85900	\$60.00

**E-BUCK
AUCTION RULES**

- ✓ All Auction Signs are numbers. Students are required to hold Auction Sign up when they want to bid on an item at the E-Buck Auction.
- ✓ Prizes are wrapped and the true identity of the various prizes will not be revealed until an individual has purchased the prize
- ✓ All prizes will start off at a price that will be determined by the Auctioneer (teacher). The Teacher will state the starting bid and the amount is non-negotiable.
- ✓ Everyone who plans on participating in the auction must have their authentic E-Bucks (E-Bucks must be approved by the teacher) and ALL of their E-Records on the Auction Day to participate.
- ✓ Students cannot combine their E-Bucks to buy items.
- ✓ Students cannot GIVE or LOAN other students their E-Bucks.
- ✓ Students cannot save their E-Bucks for the next term/quarter.
- ✓ Students can ONLY buy extra credit points if they have an excused absence on the day of the auction.
- ✓ Do not BID on an item if YOU do not want to purchase it! Do not try to raise prices for your classmates.
- ✓ Everyone MUST be respectful and polite (No talking) during the auction so that the Auctioneer can hear all and bids.
- ✓ All participants MUST have a number to participate...so sign in and pick up your number.
- ✓ Before location numbers or prizes are distributed, the individuals MUST PAY for their products.

In order to participate in THE SECOND ANNUAL E-BUCKS AUCTION YOU MUST SIGN BELOW and TURN IN TO MS. WAGGONER.

STUDENT SIGNATURE

DATE

E-BUCK AUCTION ITEM LIST
TERM _____

Class Name and Period: _____

Item Description	Ending Bid Amount	Name of Person Who Purchased Item

Important:

On the back of the paper please reflect on your experience with our E-Buck Simulated Classroom Economy:

1 ASSIGNMENT ONLY PASS CARD

Term 2 ONLY!!

_____ CLASS

(*See Teacher for assignments that qualify)



1 ASSIGNMENT ONLY PASS CARD

TERM 2 ONLY

_____ CLASS

(*See Teacher for assignments that qualify)



1 ASSIGNMENT PASS ONLY CARD

TERM 2 ONLY

_____ CLASS

(*See Teacher for assignments that qualify)



On a sheet of paper write the following if you would like to purchase Extra Credit TODAY:

E-Buck Extra Credit Form

Complete the form and give to the Teacher before the AUCTION begins☺

You may ONLY purchase 25 extra credit points ONE TIME per TERM!

Price: \$520.00 E-Bucks for 25 extra credit points (No negotiations ALLOWED)!

Student Name: _____

Class: _____

Period: _____

Staple your money to the form and give to the Teacher before the AUCTION begins☺

TAX EXEMPTION CARD

Term 2 ONLY!!

_____ CLASS



TAX EXEMPTION CARD

TERM 2 ONLY

_____ CLASS



TAX EXEMPTION CARD

TERM 2 ONLY

_____ CLASS



E-Buck Income Taxes



April 15th!

- *All students are required to pay income taxes.
- *Failure to pay taxes will result in fines and possible bankruptcy.
- *All students can file their own taxes, however you may hire a the class Accountant to process your paperwork☺

Tax Income Brackets Below

Please Pay and Do not Complain☺

Income:	Percentage:
\$100 or Less	10% of Total in Taxes
\$101-301	20%
\$302-701	30%
\$702 +	40%

****All students are REQUIRED TO PAY TAXES IN ORDER TO BUY ANYTHING (including Extra Credit)!**

PEER TUTOR FORM

Date	Subject	Student Name Name	Student Signature

All materials in this appendix by Schavon T. Waggoner.

BIOGRAPHICAL SKETCH

Schavon T. Waggoner was born on April 2, 1979, in Maricopa County Hospital in Phoenix, Arizona. She earned an undergraduate degree in Business and Communication at Arizona State University in 2001 and a graduate degree in Secondary Education at Arizona State University in 2003. She completed an internship at Phillip Morris-Kraft Foods and Wells Fargo Financial Services while attending Arizona State University. She served as a Graduate Research Assistant at W. P. Carey School of Business in Entrepreneurship courses. She worked as a vendor representative for Fragrance Exclusive and Bvlgari Parfums, 1998-2008. She taught marketing, entrepreneurship, desktop publishing, and computer application courses at Desert Vista High School in Tempe, Arizona from 2002 to 2007. In fall 2007 she began teaching business courses (Business Computer Applications and Cooperative Education) at Cesar Chavez High School and is currently working as the Professional Development Specialist at that school. In 2009 she was asked to serve on the Rio Salado College Education Advisory Board/Committee. She teaches Master Teacher Seminars at Rio Salado College. Schavon Waggoner is the youngest of nine children (seven brothers and one sister) born to Dorothy Jo and George Waggoner. She is the proud mother of Anthony Joe (AJ) Waggoner. Schavon is very thankful to be AJ's mother and appreciative of every day that she has with her son. She comes from a large, loving, church family and supportive family, including her deceased grandparents (Melvin Robertson, Sr. and Mary Robertson) and a host of great-uncles, great-aunts, uncles, aunts, cousins, nieces, nephews, great-nieces, and great-nephews.