

A Family and Consumer Sciences Education Teacher Preparation Program:

A Snapshot of Teacher-Efficacy

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by

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### Authorization to Submit Dissertation

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### **Abstract**

The following dissertation is a combination of three different pieces of work: An individual study; a group study; and a white paper. Each researcher examined the common topic of self-efficacy. Different perspectives were generated from four different areas of study: Family Consumer Sciences Education, Recreation Management, Health Sciences and Nutrition. Each area addressed its own specific needs. The following individual study examined the differences between freshman through senior Family Consumer Sciences Education students on personal teaching and general teaching self-efficacy. Results showed no significant relationship existed. However, results though not statistically significant, did provide a baseline measurement of general and personal teaching self-efficacy, along with an insight into the unique characteristics of the participants. The purpose of the group study was to examine general self-efficacy and the relationship between student perceptions of professional preparation and student reported experiential learning opportunities across three experientially based university program areas: Family and Consumer Sciences Education, Recreation Management, and Health Science. The results found a significant moderate positive relationship between student perceptions about their program preparation and students' reported experiential learning opportunities. Both research studies demonstrated the students entered the programs with high or moderately high levels of self-efficacy and the rigors of higher education did not diminish student self-efficacy. Possible reasons include age, church missionary experience, and the university's innovative mission.

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I would also like to share my appreciation to all of my committee members, administrators, instructors, colleagues, friends and family members that sacrificed their time in my behalf. The time, energy and efforts spent did not go unnoticed.

Lastly, I would like to thank the FCS students at BYU-Idaho. They are amazing and are the reason why I love to teach.

## **Dedication**

I dedicate this writing to my parents, Darrell and Melba Empey.

They taught me never to quit and

to take advantage of opportunities which are uniquely  
mine.

They demonstrated that education alone does not make a person great,

but it is kindness, how you help others to succeed and how you make a difference in the lives  
of those you can influence.

Thank you momma for your support from the other side of the veil.

Your encouragement was felt through

tender impressions and recollections of your words.

I love and miss you momma.

Thank you Daddy for your constant concern for what I was accomplishing. As  
an alumnus of the University of Idaho, you forged the path for me to follow.

You understood what I was doing and was proud of it.

Sometimes you just listened.

You are truly my hero.

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## Chapter 1: Introduction

The Family and Consumer Sciences Education (FCSE) program at a private university in Idaho is a teacher preparation program preparing undergraduates to become Family and Consumer Sciences secondary teachers. Through experiential learning (EL) classes, the program attempts to provide students with worthwhile learning experiences and professional opportunities. FCSE is housed in the department of Home and Family in the college of Human Development and Education. Students can major in specific Home and Family related areas or in the composite major of Family Consumer Sciences Education (FCSE).

As a composite major, FCSE has high academic rigor (Duncan, 2001) in addition to its course work being regimented. The sequencing of course work has been deliberately designed to guide students through a professional development plan. Students, in addition to enrolling in specific content classes, are required to participate in three teaching practicums, an internship, and a full semester as a pre-service teacher in an approved FCSE secondary program (Brigham Young University- Idaho, 2013). When course work is completed, students must take and pass the PRAXIS II test for FCSE. The PRAXIS II is content based “legislative mandated, high-stakes, norm-referenced exit examination” (Brown, Brown , & Brown, 2008, p. 30). Students must take and pass this exam their senior year in order to student teach. Upon successful completion of student teaching, the graduates will have earned a Bachelor’s in FCSE and a Professional Technical Education endorsement for the state of Idaho.

FCSE program objectives are aimed at providing the student learning experiences to build confident self-directed teachers. A program goal is to prepare teachers who will stay in the profession and be committed to help it grow. These pre-service teachers gain experience

through experiential learning courses. Experience is acquired through course work, internships and teaching real students in practicums, labs and a supervised student teaching experience. Traditionally, FCSE has been taught through a hands-on approach (Kato, 2008).

This approach, for years, has provided the FCS student with the confidence “to do”. Teacher preparation programs develop teachers who have mastered skills to such an extent to which they are prepared and feel confident in becoming an effective FCS professional. This confidence “to do” is often referred to as self-efficacy (Bandura A. , Self-efficacy: The exercise of control, 1997). It is more than just a feeling of confidence, but also an ability to take action. Self-efficacy is one’s own perception of their “confidence to do”. In relation to FCS students, our program should help students to believe they have the self-efficacy and thus confidence plus ability to teach.

Unfortunately, the FCSE programs often have students drop out because they choose not to teach in the public school system. Some new professionals are leaving teaching after a relatively short time due to being overwhelmed with what they perceive they were not prepared to do as a teacher (Godbey & Johnson, 2011). With continued loss of professional FCS educators the profession may no longer be able to sustain itself. Thus a teacher preparation program in FCSE should be greatly concerned with its ability to foster self-efficacy in its students. The more understanding gained in regards to self-efficacy the better preparation can be designed to meet the needs of future FCS professionals.

## Setting the Problem

Generally, the FCS Education component of the profession has struggled to engage new professionals (Godbey & Johnson, 2011). New professionals, who are overwhelmed or not finding satisfaction in their work, have no reason to stay within the teaching field. Godbey and Johnson point out the first few years of teaching can be the most difficult. Seniority usually dictates when, where and who the new teacher is teaching. Most often they find themselves in “the least desirable schools, with the least desirable students, in the least desirable rooms, and in the least desirable teaching assignments” (2011, p. 13). Teaching is a career choice requiring significant educational preparation, including deliberate strengthening of self-efficacy. Whose responsibility is it? McGregor admonishes higher education by stating, “This responsibility falls on higher education administration and program planners” (McGregor, 2011).

It would appear FCS Education educators and program planners need to make better informed improvements to their programs. Teaching practices could be improved to strengthen student preparation and perception. Pre-professionals’ progression can be accomplished by completing a well-designed degree program which nurtures students into becoming efficacious teachers. One improvement might be to understand how students generally perceive what they are learning and how it can be helpful in their preparation as a professional educator. Another way might be to examine when, in their undergraduate development, students begin to improve their teaching efficacy, or if it deteriorates. Identifying general trends in the development or non-development of teacher self-efficacy, could assist university instructors and administrators in identifying specific benchmarks for making improvements.

**Statement of the Problem**

The purpose of this inferential study was to examine differences between freshman through senior FCS Education students on personal teaching and general teaching self-efficacy.

**Hypotheses.**

Hypothesis 1: No difference exists with Family and Consumer Sciences Education majors' class year on personal teaching self-efficacy scores.

Hypothesis 2: No difference exists with Family and Consumer Sciences Education majors' class year on general teaching self-efficacy scores.

**Correlations.**

Correlation 1: No relationship exists with Family and Consumer Sciences Education personal teaching self-efficacy and general teaching self-efficacy scores.

Correlation 2: No relationship exists with Family and Consumer Sciences Education majors' class year and personal teaching self-efficacy scores.

Correlation 3: No relationship exists by Family and Consumer Sciences Education majors' class year and general teaching self-efficacy scores.

**Research sub problems:**

1. What is Family and Consumer Sciences Education?
2. What is an effective FCS Ed prep program?
3. What is self-efficacy?



4. How do FCS Education programs strengthen self-efficacy?
5. Why is improvement of self-efficacy important?
6. How can we measure self-efficacy?
7. What is teaching-efficacy?
8. How can we measure teaching-efficacy?

**Statistical sub problems.**

1. What is the effect of FCS Education by grade level on FCS program students' personal teaching self-efficacy (PTE)?
2. What is the effect of FCS Education by grade level on FCS program students' general teaching self-efficacy (GTE)?

**Assumptions**

Assumptions made are:

1. Several junior and senior FCS Education students are leaving the FCS Education program because they lack self-efficacy in teaching.
2. The FCS Education student can be taught how to develop a stronger self-efficacy in general.
3. Once self-efficacy is strengthened, then the FCS Education student will be a more effective teacher in the classroom and go into and remain in the profession.

## **Delimitation**

Delimitations are:

1. Data were captured from FCS Ed. students from one private university in the state of Idaho. This institution is the largest FCS Ed. program in the state. The small n in the other two universities with FCS programs, ISU and U of I, prevented data gathering and analysis.
2. The decision to not gather data from other universities with FCS Ed. programs in the U.S. was made due to the unique characteristics of the BYU-Idaho students. Data will be used to improve FCS offerings. The researcher is the FCS Ed. program director and has influence to recommended improvements which can be implemented based on potential results of the study.
3. The instrument used in this study identifies only two factors. More current instruments view factors beyond personal and general teaching self-efficacy of which our pre-service teachers may not have yet encountered.
4. Recent graduates were not being assessed. Their scores could be included in a future study along with their individual stories of how they came to gain the teaching efficacy they currently have.

## **Limitations**

Limitations include:

1. Due to the homogeneous nature of the sample population, only general trends can be identified which might translate to the larger body of FCS degree offering institutions. All participants are of the same gender and religion.

2. The religious ideology of this group may also impact why students are leaving the FCS Ed. program.
3. The sample was all women.
4. The sample is from a moderately small population.
5. A favorable analysis may be viewed as biased due to the fact the researcher is the FCS Ed. program director of the group being studied.
6. Due to time constraints only a “snap shot” of the current program was gathered.

### **Definitions**

1. Self-Efficacy: “Self-efficacy is defined as beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3).
2. Family Consumer Sciences (FCS): A holistic profession covering a number of areas impacting individuals, families and communities through hands-on skill attainment in a variety of areas such as Foods and Nutrition, Hospitality, Textiles and Apparel, Interior Design and Housing, Education and Extension, Community Services and Consumer Resource Management (Kato, 2008).
3. Family Consumer Sciences Education (FCS Ed.): One specific area of professional technical education which impacts individuals, families and communities in the areas of Foods and Nutrition, Hospitality, Textiles and Apparel, Interior Design and Housing, Education and Extension, Community Services and Consumer Resource Management. The FCS Educator can be found in secondary education, higher education, industry and extension (Kato, 2008).

4. Experiential Learning (EL): The process whereby knowledge is created from the transformation of understanding experience. Experiential learning is defined by Kolb (1984) as involving a cognitive component which is demonstrated in a lived experience. The process must involve repeated adaptations in an environment. For example, the basics of planning to balance a check book are learned by balancing a real checkbook. If the process fails, you review, revise and relive the experience (Kolb, 1984).

### **Significance**

Prendergast (2009) asserts home economics (FCS) is at a “convergent moment” and what we do now will affect the entire future of the profession”. Clearly the mission (quality of living) and meaning (nurture) of FCS are timeless and foundational concepts of all human experience, yet disciplinary practices in FCS continue to be marginalized (McFall & Mitstifer, 2005).

Family and Consumer Sciences students and professionals are on the “cusp” of a new sort of revolution, just as impacting as the industrial revolution was historically (Nickols, et al., 2009). It is the pre-professional’s time to take the reins of the profession and guide it through the next 100 years. Family and Consumer Sciences Education students’ preparation needs to be understood and improved upon to make certain this “moment” is not lost (Prendergast, 2009). If more new professionals in FCS were prepared through deliberate program changes meant to strengthen teaching efficacy, the FCS profession, might as a whole, flourish and indeed be prepared for the next 100 years.

**What follows?**

The following chapters will be outlined as follows in Chapter 2:

1. The History of FCS
2. The Early Beginnings of FCS
3. The Profession Today
4. The Self-Efficacy Connection
5. Experiential Learning
6. The Link Between Experiential Learning and Teaching Efficacy
7. The Demand for Efficacious FCS Educators
8. The Relevance of FCS Ed Today

Chapter 3 will be the study's design and methods for gathering the data related to preparation of the new FCS professional.

## **Chapter 2: Literature Review**

### **The History of FCS**

In 1994, the Home Economics profession changed its name to Family Consumer Sciences to realign itself with society's more contemporary needs and provide a more current holistic name (McGregor, 2011). The name change would reflect a broader vision of how the FCS profession might meet the needs of individuals, families, and communities (Nickols, et al., 2009). Though the name and vision changed, the way FCS is taught and learned was not formally changed.

Undergraduate students in FCS Education still learn by doing. The traditional experiential learning methods (Dewey, 1938) can be witnessed in both the learning and teaching of FCS. FCS Education programs have attempted to provide opportunity for undergraduates to develop not only the understanding of the FCS content, but also the ability "to do". Simultaneously, with the skills being mastered (Gavora, 2010), the FCS Education major is expected to gain high teaching efficacy.

### **The Early Beginnings of FCS**

Historically, the home produced most products and services utilized by the family. Clothes, soap, food, childcare and education were produced by the family in the home. Ellen Swallow Richards is recognized as the founder of Home Economics (FCS) with her influence in the mid 1800's. She was a well-educated women scientist who felt the home could be not only a producer, but a laboratory. Richards was influential in the changing roles of the home and women. "Her pioneering studies of air, water, and food led to the creation of national public health standards, (municipal water systems) and the creation of new fields of study.

She inspired many women, in science and higher education” (Kato, 2008, p. 34). Her work was the beginning of a discipline which changed constantly throughout the 20<sup>th</sup> century.

Those changes have made their way to the home. Today many products and services, studied and improved by Richards, are produced outside the home, yet are still consumed by the family within the home. Instead of offering one general area of study, home economics evolved into many areas of specialization. These areas address all aspect of home and family (Kato, 2008).

Family and Consumer Sciences contains several content areas which are “nested” together to share a core concept (McFall & Mitstifer, 2005). The six FCS areas identified by Kato are: Foods and Nutrition, Hospitality, Textiles and Apparel, Interior Design and Housing, Education, Family & Consumer Sciences Education and Extension, Family and Community Resources, and Family and Consumer Resource Management (Kato, 2008). These constitute the vast generalization of the Family and Consumer Science field of study. Until relatively recently, a major in FCS was common in universities and colleges across the United States.

### **The Profession Today**

In recent years the FCS profession has struggled to engage new professionals and pre-professionals who are prepared for the next 100 years of service (Nickols, et al., 2009). With the decrease of trained FCS educators, the profession has decreased in size. If the downward trend continues it may no longer be able to sustain itself. An adverse outcome could directly affect some individuals, families and communities who will not have their basic living needs met. Prendergast urges us to “future-proof the profession”; meaning “anticipate future

developments to minimize negative impacts and optimize opportunities”.... “to ensure relevancy, viability, and vitality” (Pendergast, 2009, p. 517).

McGregor recognizes two avenues for assisting the profession: “First, higher education home economics degrees (FCS), and the attendant socialization process, deeply affect the formation of the professional identity. Second, strong professional identity with the profession is a powerful tool to future proof the (FCS) profession” (McGregor, 2011).

If FCS educators improve their practices in higher education and develop deliberate socialization experiences for students, the new FCS professional can pursue higher degrees and serve as leaders in the next 100 years. McGregor admonishes, “This responsibility falls on higher education administration and program planners” (McGregor, 2011, p. 565).

McGregor heralds the idea of “socialization of new FCS professionals deeply affects the formation of professional identity” (Sharma & Romas, 2008).

Socialization involves a number of actions. Students can deliberately be provided opportunities to experience the FCS profession in a variety of ways. They might include: inviting students to register as a member of a professional association, or paying for their membership; taking them to a professional conference; asking them to present at a professional event; teaching them the professional memes of FCS; having them be a judge at an FCCLA (a FCS youth organization) event; taking a field trip to visit FCS teachers; and/or nominating them to serve in a student leadership position. The opportunities are as vast and unique as each student. Their perceptions of inclusion and ability to succeed in the FCS profession are just as varied. This perception of their own abilities is known as self-efficacy.



### **The Self-Efficacy Connection**

Self-efficacy, as stated by Bandura is a major foundation for action. “Unless people believe they can produce desired effects by their actions, they have little incentive to act” (Bandura A, 1997, p. 11). He continues, “People build their lives by their beliefs of personal efficacy. Perceived self-efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura A., 1997, p. 3).

Students of higher education who are taught in an experiential learning environment are more prone to attain higher self-efficacy in their areas of study, creating outcomes beneficial to the student such as higher rates of graduation, higher rates of professional employment, and healthier life styles. Another insight into understanding experiential learning is given by Schuab and Tokar (2005, p. 25) when they describe “a stepwise process beginning with direct experience, followed by reflection, followed by learning.” Connecting a theory with experiential learning often includes applying phenomenon to our actual lived experience (Fox, 2008).

Learning by doing is the traditional way of acquiring FCS knowledge and skills. Since the early 1900’s, Dewey’s philosophy of learning by doing has been a part of the vocational education foundation. The early period in American history was known as the “Progressive Era” where the American Home Economics Association flourished (Schaub & Tokar, 2005, p. 27). John Dewey was a proponent for vocational education, now called professional technical education. This hands-on approach to learning has included both youth and adults, which have two very distinct ways of learning.

Professional technical education began with agriculture and home economics (FCS) as its base areas of study (as cited by Gordon, 2008). Dewey (1938) believed education should

“meet the needs of individuals and prepare people for life”. FCS and agriculture indeed educated people to meet their own needs in home, family and farm.

Fox found that effective learning occurs when “instructors have strong educational experience” and “instruction begins with problem-solving skills” (Fox, 2008, p. 34). The traits unique to experiential learning follow social cognitive theory concepts of self-efficacy (Paul, 2005). They include experience with discussion and reflection.

Beauchamp and associates described a study conducted with students who ran a race. The results illustrated, that students who were “experientially-primed” with more running experience reported significantly higher levels of self-efficacy and desires to participate in physical activity compared to the students who were more “genetically-primed” and in good physical condition but had no experience as a runner (Beauchamp, Rhodes, Kreutzer, & Rupert, 2011). Those persons in professional and technical education programs require experiential learning for their hands-on trades (Clark, Threeton, & Ewing, 2010). Experiential learning can increase self-efficacy. Active learning strategies must include two important components if they are to effectively promote student learning: an activity or task and a discussion. Fink expounded on the importance of direct experiences and how they are powerful (Fink L. D., 2003).

Today, professional technical education courses are designed to engage the teen and/or adult learner using skill based curricula. This has been the traditional way of teaching vocational skills since the beginnings. FCS has historically taught skills acquired only through application and experience. It is no surprise the motto of 4-H, the oldest vocational youth organization is “Learn by Doing” (Gordon, 2008).

## **Experiential Learning**

Experiential learning can improve self-efficacy. “Experiential Learning Theory (ELT) provides a holistic model of the learning process and multi-linear models of adult development, both of which are consistent with what we know about how people learn, grow, and develop. The theory is called ‘experiential learning’ and emphasizes the central role *experience* plays in the learning process” (Kolb, Boyatzis, & Mainemelis, 1999, p. 2). It is a process “whereby knowledge is created through the transformation of experience”. There are four basic elements to experiential learning: concrete experience, observation and reflection, the formation of abstract concepts, and testing in new situations (Smith M., 2011). ELT has steadily gained popularity and acceptance in higher education and “serves as an invaluable resource for teaching and learning” (Kolb & Kolb, 2006).

Experiential learning courses are classes taken in real time in which real life opportunities occur in the subject matter. For example in a FCSE class, HFED 380 Education to Employments, a course objective listed in the course catalog says students are taught why and how to organize an advisory committee (Brigham Young University Idaho, 2013). Then the student actually organizes a number of them to accomplish the course goals. Members of the class then serve on the newly formed committees. They nominate officers and are given a service learning project to complete. The planned project might be a 4-H Day camp for local youth. They then serve as 4-H volunteer leaders and teach workshops to youth. The FCSE students develop project proto types, prorated all expenditures, write lesson plans, organize workshop schedules, solicit donations, and teach for four hours on a designated Saturday.

In this experiential learning based class students are expected to participate and demonstrate stellar work. As a summative assessment, the instructor has the students write

down what they have learned serving on the advisory committees. Students organize write-ups, with the lesson plans, instructions, and schedules into a portfolio. They then have tangible evidence of the experience and can duplicate it in the future as a new professional. This is a powerful example of what innovative experiential learning can do to build students self-efficacy in program development.

John Dewey (1934) believed learning occurred while doing, for both adults and youth. Dewey believed education should “meet the needs of individuals and prepare people for life”, “instructors have strong educational experience” and “instruction begins with problem-solving skills” (as cited in Gordon, 2008, p. 34). His primary support of such notion was the experiential learning theory. The traits unique to experiential learning follow social cognitive theory concepts of self-efficacy (Paul J. L., 2005).

### **The Link between Experiential Learning, Self-Efficacy and Teaching Efficacy**

The experiential learning experience should increase self-efficacy because it matches Bandura’s ideas about “modeling” “motivation” and “self-regulation” which became his cognitive theory in 1986. In Social Cognitive Theory people “are viewed as self-organizing, proactive, self-reflecting and self-reflective rather than a reactive organism” (Bandura A., 1997). Bandura’s theory is rooted in a view of human agency in which individuals are agents engaged in their own development and making things happen (Pajares, 2013).

Bandura outlined four ways self-efficacy can be developed: (1) mastery experience; (2) social modeling, vicarious experience; (3) improving physical and emotional states, physiological states; and (4) verbal persuasion or social persuasion (Sharma & Romas, 2008). Garvis, Twigg and Pendergast (2011) in studying pre-service art teachers, reviewed

Bandura's four ways for developing self-efficacy in the pre-service teacher. The results suggest teacher instructors and co-operating teacher's self-efficacy strongly influences the way art education is taught in classrooms (2011).

Ironically, it was found in the development of pre-service teachers the instructors should "first attend to the sources underlying their own beliefs" (Garvis, Twigg, & Pendergast, 2011). In doing so, the four previously mentioned sources for developing self-efficacy should be addressed honestly by the instructor. According to the authors, instructor self-efficacy could be enhanced if desired.

Garvis, et al. (2011), contribute to the understanding of the valuable role of professional practice (experience) with others during the pre-service teacher education program. Instructor self-efficacy beliefs, contribute to forming the capabilities of novice teachers. Positive modeling and verbal persuasion demonstrated for the pre-service students by their instructors were effective ways of developing positive self-efficacy. The fact the instructor's self-efficacy can impact the pre-service teacher significantly was a very appropriate observation. Garvis et al. (2011), cites several researches when recognizing desirable practices result from high "teacher self-efficacy".

High self-efficacy leads teachers to: (1) Greater commitment to teaching (2) greater levels of planning and organizing; (3) decreased teacher burnout; and (4) utilization of a wider variety of teaching materials (Garvis, Twigg, & Pendergast, 2011).

Personal teaching efficacy is defined as the teacher's "overall sense of his/her own teaching effectiveness". General teaching efficacy represents the general belief teaching can affect pupils positively (Gavora, 2010, p. 20).

“FCS educators in addition to teaching basic concepts or skills must also focus on teaching student strategies allow them to learn skills more effectively and to develop the self-confidence needed for success in the school and in all aspects of life” (Schulze & Schulze, n.d.). According to Knowles, Holton and Swanson self-efficacy plays a supportive role in student achievement and learning. Adult learners, who understand the “why” of what they are learning, develop a greater sense of motivation to complete, or “to do” the task and confidence is nurtured upon completion of the goal (Knowles, Holton III, & Swanson, 2005).

When perception of a performance is positive, the self-efficacy is raised. When the perception is one of failure, the self-efficacy is lowered (Garvis, Twigg, & Pendergast, 2011). Perceptions and expectations of experiences, coupled with positive experience can guide the FCSE program to better nurturing of student’s efficacy.

Authentic experiential learning pedagogy and andragogy are imperative in career and technical education programs (of which FCS Ed is a part) (Clark, Threeton, & Ewing, 2010). Social cognitive career theory was explored by Lent & Brown (2006) who provided a guide to assess self-efficacy, outcome expectations, interests, goals and contextual supports and barriers. Lent and Brown believe job satisfaction is examined as a domain-specific aspect of subjective well-being (2006).

In 2011, Dunn conducted an investigation of the influence of 185 pre-service teachers’ “teacher efficacy and concerns on their learner-centered beliefs” (2011, p. 39). Learner-centered beliefs were selected as the best indicator of future teaching actions, because these pre-service teachers had not yet entered the classroom or engaged in teaching practices. Pre-

service teacher efficacy and concerns, individually and collectively, significantly influenced learner-centered beliefs.

These findings indicate teacher education can facilitate the development of learner-centered beliefs by addressing these trainable characteristics and demonstrate the need to further explore both teacher efficacy and concerns as they relate to learner-centered education within teacher education programs (Dunn, 2011). Following Dunn's recommendation, the study of teacher efficacy appears to be needed to understand better the success of experiential education in FCS Education.

### **The Demand for FCS Educators**

In the Journal of Family and Consumer Sciences, an article about the need for FCS teachers lists all the states having a shortage of teachers. Only five states were found to have sufficient pools for applicants. Twenty six states found they had a shortage or future shortage of qualified FCS teachers (Werhan, 2013). Idaho alone needed to fill over 14 Family and Consumer Sciences teacher positions in the fall 2013. FCS is identified as a designated teacher shortage area (Department of Education, 2013). There is no shortage of need for FCS teachers. They are in demand. FCS as a generalist discipline expects teachers to perceive themselves as effective teachers who have the confidence to teacher a variety of life skills.

Life skills need to not only be taught, but taught by efficacious teachers. Home and family will always be integral components of our society and teachers' influences are more impacting than ever before. Today, education is a service attained outside of the home. If students, who achieve in all areas of life, are the product which is being demanded, we need

to identify when or if pre-service teachers develop teaching efficacy, as a way to improve the preparation of our new FCS teachers.

### **The Relevance of FCS Ed Today**

FCS education today is relevant for families, students, and educators alike. Historically, in the mid twentieth century, every high school student was required to take a Home Economics class. Today, many teachers are working to make certain FCS is seen as a credible career preparation program. Those of the younger generation, who did not take such courses, see it as a new venue for educating the public.

FCS is once again being recognized as prevention for preventable epidemics. This is not a new concept to the FCS professionals, but it is new for this next generation. “As the 21<sup>st</sup> century unfolds, it would be appropriate for FCS to be recognized as the discipline that stirs intellectual concern for quality of life issues that subsequently address inequalities among individuals, families, and communities (Duncan, 2001)”.

Ironically, there seems to be a trend towards acquiring the more traditional FCS skills in the United States. In a recent New York Times report, women are finding it trendy to become, self-sustaining house wives. Ironically, they are demanding the revival of “Home Economics” to assist in a number of epidemics in the United States, one being the obesity epidemic (Veit, 2011, p. A27). It is an interesting request. The request shows the current value and need for the profession.

The pacesetters of the FCS profession feel “the more challenging learning experience, which educators need to guide their students in, is to understand why: Home economics (FCS) knowledge was and is needed” (Nickols, et al., 2009). Again, in adult learning, if they know



why, they are more motivated “to do” (Knowles, Holton III, & Swanson, 1998). The more we understand about pre-service teacher’s efficacy to teach, the more we can prepare them to realistically meet the challenges of our day.

Families and communities still exist, and the desire to live a quality life by providing the basic needs of food, clothing, and shelter is as relevant today as it was 100 years ago. From designing accessible housing for an aging population to helping youth complete their high school education, all areas of specialization within family and consumer sciences are called upon to help individual’s families, and communities adjust to a changing environment (Kato, 2008).

Now is the time to educate the public and promote the profession of Family and Consumer Sciences. The skills, used in and out of the home, are once again in demand and relevant for the next 100 years.

### **Unique FCS Ed Pre-professionals**

FCS undergraduate students can be found in every state. Many choose FCS because they have a desire to serve people (Godbey & Johnson, 2011). As a generalist profession, students can identify with a number of skill developing areas such as child development, teaching, cooking, time management, home décor, apparel construction and design, nutrition, financial management, home management, parenting, and housing (Kato, 2008). Students often choose FCS because they like the variety of areas that are offered in the field. Some may even have participated in Future Career and Community Leaders of America (FCCLA) or had a FCS class in school prior to attending college.

The FCS pre-professionals in this study from a private religious institution are a unique group of students. The number of students majoring in FCS Ed ranged from between 240 to 120 in 2013 (Home and Family Department). The numbers vary due in part to the amount of female students who choose to serve an eighteen month proselyting mission for their church. In fall 2012 the church's president Thomas S. Monson declared that the age for serving full time missions had changed. Men could now go at eighteen years of age, instead of nineteen. Young women could now serve at nineteen as opposed to twenty one years of age (Monson, 2012). Since that decree, majors with a large portion of their students as women have decreased in numbers.

Many students bring with them life experiences that influences their choice to become a new FCS professional. Students at this university are all women who are members of The Church of Jesus Christ of Latter-day Saints (LDS). They have been taught to serve others from a young age. They believe that women have a divine role as nurturers (The family: A proclamation to the world, 1995). The majority of them are traditional young adult students while only small portions are non-traditional older adult students. FCS majors in the year 2013 came from across the United States, Canada and France. They are from a variety of backgrounds.

The FCS profession's mission is to meet the needs of individuals, families and communities in a changing world. Young LDS women are taught from the age of twelve to study, organize, and set goals. They participate in a self-paced program called Personal Progress program (Young women: Personal progress, 2009). Church leaders also encourage girls and women to earn as much education as possible. Past president of the church, Gordon B. Hinckley, told young women, "Resolve now, while you are young, that you will get all of

the education you can” (Hinkley, 2007). Not all LDS women students choose FCS for their educational pursuits but many do find a place among its various specialty areas. As pre-professionals the FCS students are provided experiences to help them to learn more and develop professionally. Professional socialization of the pre-professional FCS educator, if done effectively, is a way of nurturing positive self-efficacy and can be achieved by taking every opportunity to establish experiences for the pre-professional.

## **Chapter 3: Methods**

### **Introduction**

The purpose of this inferential study was to examine differences between freshman through senior FCS Ed students on personal teaching and general teaching self-efficacy. This chapter is organized in five sections: (a) procedures, (b) instrument, (f) participants, (g) protections, and (h) data analysis.

### **Procedures**

Students at a private intermountain university, declared as majors in Family and Consumer Sciences Education, were given an anonymous online general teaching self-efficacy assessment. They were asked to complete a 10 item evaluation, with an additional three questions that collected demographic data about that student. It would have taken approximately five to ten minutes to complete. Participants were allowed to stop participating at any time. They were encouraged to contact the investigator if they had questions about the study. Once they completed the assessment a “thank you” email was sent. Periodic reminder e-mails followed the initial invitation to participate.

### **Participants.**

The study used a convenience sampling strategy to identify participants. All FCS Ed. students actively enrolled in the FCS Ed. program in fall 2013 were invited to complete the assessment. Only those students 18 years of age or older were allowed to complete the assessment. The four grade levels of FCS students were identified as: Freshmen 1-29 credits, sophomore 30-59 credits, junior 60-89 credits, and senior 90 + credits. FCS Education classes

were defined as any class specially identified as part of the required sequence of course work for a declared major in the FCS Education program.

### **Protecting participants.**

All subjects were informed about the study process in writing. Internal Review Board (IRB) consent was solicited before surveying participants. The University of Idaho IRB approved this study; number 13-189 (see Appendix A). The National Institutes of Health (NIH) Office of Extramural Research was successfully completed by the researcher (see Appendix B). Scott Bergstrom stated reciprocal approval to conduct the study at BYU–Idaho.

### **Instrument.**

The Teacher Efficacy Scale adapted by Hoy & Woolfolk: Short Form, was used in this study. It is a ten item assessment developed from the “long” form of Gibson and Dobson’s 1984 Self-Efficacy Scale and adapted by Hoy & Woolfolk (1993). This “short” form was developed using the two independent dimensions found to be General teaching Self-Efficacy (GTE) and Personal Teaching Self-efficacy (PTE) (Tschannen-Morgan, Woolfolk Hoy, & Hoy, 1998) and recommendations on how to build a self-efficacy scale from Bandura (1994). Five questions related to PTE and five questions were about GTE were deliberately placed in this short form to be studied as well as distinguished between. Responders identified their perception using a 6 point Likert scale from “*strongly agree*” to “*strongly disagree*”. The items that represent the GTE are: 3, 6, 7, 8, 9. PTE is represented in items: 1, 2, and 4,5,10. The instrument can be found in Appendix C. Permission to use this instrument is located in Appendix D.

The possible range of scores for PTE was 6-30, with the lower score signifying one has a stronger positive perception relative to one's self-efficacy to teach. The possible range of scores for GTE was 6-30; these questions were reversed in language meaning a teacher with strong efficacy should deny the statement. Therefore, the higher one scores the more one understands a teacher's ability to overcome society's perception that teachers cannot affect student achievement (Hoy A. , n.d.).

In 2000, Hoy felt measuring only two factors was limiting in determining teachers' effectiveness (2000). Teachers also expressed their confidence in other areas such as classroom management/discipline, assessment and student/ teacher relationship. But, since my students had not yet had their own classrooms and some would leave the program because they did not want to teach, I chose to see how they felt about their personal teaching confidence and generally what they felt a teacher could do.

### **Data and Analysis.**

Correlations were run to examine the relationship between class standing, general teaching self-efficacy, and personal teaching self-efficacy. A one-way ANOVA [grade = 4] was used to detect differences among the main effect with alpha set at  $p < .05$ . Sums of the five personal self-efficacy and the five general self-efficacy scores were used to give a total personal teaching self-efficacy (PSE Total; range = 6-30) and total general teaching self-efficacy score (GSE Total; range = 6 - 30). After a significant F test, Tukey's Post Hoc analysis will be used to detect which means were significantly different. Experiment-wise error rates were controlled at a level equal to the F test alpha level ( $p < .05$ ).

To examine reliability of data for the PTE and the GTE, Cronbach Alphas were run. The Cronbach Alpha for the PTE was .82. The Cronbach Alpha was within the range of

reported Cronbach Alphas on the instrument. The Cronbach Alpha for the GTE was .62. This score was lower than the .70 which would be considered a good reliability. Because the GTE questions reflect what society perceives about a teacher's influence, this score may be more volatile compared to the PTE score.

## **Chapter 4: Results, Discussion and Implications**

The purpose of this inferential study was to examine differences between freshman through senior FCS Ed students on personal teaching and general teaching self-efficacy.

Participants were 53 (freshman = 8, sophomores = 8, juniors = 10, seniors = 27) Family and Consumer Sciences Education majors at a private northwestern university. All students were female and over the age of eighteen. Each participant was registered as an active student for fall of 2013.

### **Results**

#### **Hypothesis.**

Hypothesis 1: No difference exists with Family and Consumer Sciences Education majors' class year on personal teaching self-efficacy scores.

No significant difference was found with consumer science major's class year on personal teaching self-efficacy scores  $F(1,49) = .387, p = .763$  (see Table 1).

Hypothesis 2: No difference exists with Family and Consumer Sciences Education major's class year on general self-efficacy scores.

No significant difference was found with consumer science major's class year on general teaching self-efficacy scores  $F(1,49) = 1.55, p = .213$  (see Table 1).

#### **Correlations.**

Correlation1: No relationship exists with Family and Consumer Sciences Education personal teaching self-efficacy and general teaching self-efficacy scores.



A significant negative correlation was found with consumer science major's class year and personal self-efficacy scores:  $r = -.359$ ,  $p = .008$ ,  $r^2 = 12.8$ . General teaching self-efficacy scores accounts for approximately 12.8% of the variability in one's personal teaching self-efficacy scores.

Correlation 2: No relationship exists with Family and Consumer Sciences Education major's class year and personal teaching self-efficacy scores.

No significant correlation was found between class year and personal teaching self-efficacy scores:  $r = .103$ ,  $p = .461$ .

Correlation 3: No relationship exists by Family and Consumer Sciences Education major's class year and general teaching self-efficacy scores.

No significant correlation was found between class year and general teaching self-efficacy scores:  $r = -.244$ ,  $p = .078$ .

Table 1.

*Mean results for Family & Consumer Sciences Majors Personal and General Teaching Self-Efficacy Scores*

<b>Scale</b>	<b>N</b>	<b>Mean</b>	<b>Sd</b>	<b>Range of Possible Scores</b>
<b>Freshmen</b>				
Personal Teaching Self Efficacy	8	12.5	2.25	6-30
General Teaching Self-Efficacy	8	20.25	3.15	6-30
<b>Sophomore</b>				
Personal Teaching Self Efficacy	8	11.37	2.25	6-30
General Teaching Self-Efficacy	8	18.75	5.28	6-30
<b>Junior</b>				
Personal Teaching Self Efficacy	10	12.7	2.49	6-30
General Teaching Self-Efficacy	10	16.80	3.55	6-30
<b>Senior</b>				
Personal Teaching Self Efficacy	27	12.74	3.71	6-30
General Teaching Self-Efficacy	27	17.51	3.46	6-30

*Note 1. The possible range of scores for Personal Teaching Self-Efficacy was 6- 30, with the lower the score, the stronger ones positive perceptions relative to teaching self-efficacy.*

*Note 2. The possible range of scores for General Teaching Self-Efficacy was 6-30, with the higher the score, the stronger one understands the differences between society's perceptions about a teacher influence on students in the classroom and a teacher's personal influence in the classroom.*

## Discussion

The purpose of this inferential study was to examine differences between freshman through senior FCS Ed students on *personal teaching* (PTE) and *general teaching self-efficacy* (GTE). First, in order to verify the instrument, a correlation was run on the two factors. Correlation 1, *A significant relationship was found with Family and Consumer Sciences Education personal teaching self-efficacy and general teaching self-efficacy scores.*

PTE and GTE did correlate negatively with each other, which should be expected. When the PTE score increases the GTE should decrease (Tschannen-Morgan, Woolfolk Hoy, & Hoy, 1998). General teaching self-efficacy scores accounts for approximately 12.8% of the variability in one's personal teaching self-efficacy scores. Personal teaching efficacy and general teaching efficacy are two distinct factors and independent of one another. Thus, the 12.8% of variability accounted for helps explain that the two measures are relatively different constructs. Our correlation findings show they are indeed two distinct factors agreeing with the results of Hoy & Woolfolk. They too found "general teaching efficacy is clearly different from personal teaching efficacy; moreover, factors that nurture personal efficacy seem likely to have limited effect on general teaching efficacy and vice versa (Hoy & Woolfolk, 1993, p. 368)".

Next, additional correlations were run to identify any relationships PTE and GTE scores might have to each grade level. Correlation 2, *No significant relationship exists with Family and Consumer Sciences Education major's class year and personal teaching self-efficacy scores.* No significant relationship was found. Correlation 3, *No relationship exists by Family and Consumer Sciences Education major's class year and general teaching self-efficacy scores.* No significant relationship was found. Therefore we know that the class year

is independent of both PTE and GTE. Once the instrument was validated two hypotheses were considered.

Hypothesis 1, *No difference exists with Family and Consumer Sciences Education major's class year on personal teaching self-efficacy (PTE) scores.* No significant relationship was found.

Surprisingly, no significant difference was found in regards to grade level and PTE. PTE, as stated by Hoy and Woolfolk (1993), is a teacher's personal belief that he or she can make a difference with students. It was anticipated personal teaching efficacy would increase with each additional year of further FCS education. In the current study student PTE scores did not increase but maintained approximately the same average level throughout their four year program of study.

On first blush, one would think the FCS program makes no difference in the personal teaching self-efficacy of students. However, because of the consistency of scores, the FCS program did not damage their initial personal teaching efficacy. Further understanding of motive for choosing the FCS Ed. major may help to explain this initial level and the numerical changes, though not significant, at each year of study.

Students began the FCS Ed. major with an above average PTE as freshmen and at each consecutive grade level maintained a similar score. Our students are unique in that they often come with an experiential background in the various areas included in "serving the family". These areas might include, but are not limited to, management of home, family, food, shelter, clothing, relationships and resources. PTE was found to be high during the freshmen year, dipped during the sophomore year and then gradually recovered and increased through

to senior year. This is not surprising since they have been taught through their religious values and practices to value nurturing and may have gained experience in doing so, throughout their teen years. Young LDS women are taught from the age of twelve to study, organize, and set goals by participating in the Personal Progress program (Young women: Personal progress, 2009). This program is a self-paced opportunity for young women to learn and progress into becoming healthy, god-fearing, productive adults.

Planning, goal setting, achieving those goals and then teaching are components that help to develop personal teaching efficacy (Garvis, Twigg, & Pendergast, 2011). Young LDS women are taught to develop daily habits in relation to eight values. One such value is identified as “Knowledge” (Young women: Personal progress, 2009). In a value project found in this category, young women are challenged to “learn a new skill or talent that will help you care for your own future family or home (for example, budgeting, time management, cooking, sewing, or child care)”. Then they are asked to share or teach what they have learned to others.

As women in the LDS faith they are taught to value the nurturing of others. In an official declaration to the world, (The family: A proclamation to the world, 1995) one role of women is identified as the primary nurturer. Students’ personal lives are faith and expectation based on the notion that experience may be found in any number of the following areas: child development, teaching, cooking, time management, home décor, apparel construction and design, nutrition, financial management, home management, parenting, housing, and so forth.

FCS students have a desire to impact positively the family and all the areas related to the home and family. This desire to help others is not unique to BYU-Idaho students but is

common among FCS students nationwide who choose to teach in the field of FCS. Those who love the content also want others to be successful in those areas (Godbey & Johnson, 2011). Teaching FCS offers both BYU-I students and FCS students from other institutions, a venue for helping others to be successful.

In a study by Godbey on the career choice influences for selecting FCS as a teaching discipline, “helping other people” had the highest mean of influences that students identified for choosing to teach FCS. “Family”, “pleasure/new experiences” and “religion/spirituality/fulfillment” followed closely behind (Godbey & Johnson, 2011, p. 16). These are all similar values that influence BYU-Idaho students. It is understandable that students who value others and family would choose to teach FCS. With such early training in valuing family, teaching opportunities and service experience, one might expect their personal teaching self-efficacy would be above average, which they were.

Hypothesis 2, *No difference exists with Family and Consumer Sciences Education major's class year on general teaching self-efficacy scores.* No significant relationship was found.

One would think that general teaching self-efficacy would increase over time if the student is in a teacher preparation program. However, this study was a mere snapshot of an instance in time and did not provide the time component as a longitudinal study would.

There was a numerical difference between the sophomore year and the senior year in GTE, though not significant. However, this gap may be linked to an important event that occurs in the sophomore year, which may be negatively impacting the student's perception.

To answer the question, a refresher on what our students experience at each grade level is needed. Freshmen may come to the table with an idealistic perspective of teaching and their own ability to teach. This would explain why PTE is the highest when they are freshmen. We know from an earlier group study FCS Ed. students scored high in a general self-efficacy assessment (see chapter 5). BYU-Idaho students in the areas of FCS Ed., Recreation Management, and Health Sciences have a higher than normal self-efficacy scores.

As freshmen, some young women may also hold an ideal perception of teaching in general. Perhaps students feel they are capable and able. But, in reality, at this point in their education they lack specific teaching experience and or training.

It may also be explained by the fact that only a few FCS Ed. freshmen students completed the survey. Perhaps this was because those who completed the survey were the freshmen who were committed to teaching and to the FCS major. Students in FCS at BYU-Idaho currently have only one option in FCS specifically and it is to teach (Brigham Young University Idaho, 2013). Other related options for majors would be to major in Child Development or Marriage and Family Studies. But to receive training in the broad field of FCS, students currently have only the option to become teachers.

In comparison, the sophomores may have experienced their first practicum (BS in Family Consumer Science Education (940), 2013). The practicum is the first experience in a “real” classroom. Students organize a lesson for a junior high class. This experience provides them a reality check. It has been at least five years since many have been in a junior high FCS class or the first time ever for some. Perhaps this is where a “weeding out” process takes place. This could be a time when FCS Ed. majors realize teaching FCS is a great thing, but they personally may not be cut out to teach. At this point in their schooling, they have the

freedom to exercise their agency and change majors with little consequences. Perhaps this is why the scores drop considerably between the freshmen and sophomore years. Again, the relative small number of sophomores who completed the survey could also be due to the commitment factor.

Junior FCS Ed. students have been prepared through content course work and then (BS in Family Consumer Science Education (940), 2013) allowed to experience another adult education practicum and possibly completed a seven week industry based internship, for example working in a bakery, being a seamstress, or working in retail. If the student is following the appropriate sequences of courses they may even have had a child development practicum where they have acted as teachers in a child lab. Junior year is where application begins to happen. They now are given opportunities to experience teaching FCS in both an early childhood and adult educational lab, thus their PTE scores should start to improve, which they do.

In their senior year they will have taken education courses, teaching methods, and perhaps student teaching (BS in Family Consumer Science Education (940), 2013). Teaching becomes real to them. Generally dropout rates at the senior year are less than 10% (Home and Family Department) the students appear to be committed to teaching FCS. The fact twenty seven seniors finished the PTE/GTE inventory compared to twenty six students from the other three classes combined argues they, the seniors, are professionally committed and respond when solicited by another professional. This commitment is supported in a study by Canrius and Fokkens-Bruinsma (2014). They found that pre-service teachers seemed to be just as committed to their profession as they were at the beginning of their education. This could also provide insight into the high PTE in the freshmen and seniors years.



Our group study showed students in the program at a high level of General Self-efficacy (see chapter 5). Together, the GSE and GTE scores inform us the ways in which the programs are being taught are not eroding or strengthening our student's confidence "to do", throughout their academic experiences. The two scores, GTE and PTE together appear to demonstrate our programs are keeping our student's teaching self-efficacy at a relatively constant above average level throughout all four years at the university.

In 1984, Gibson and Dembo predicted that teachers who score high on both general teaching efficacy and personal teaching efficacy would be active and assured in their responses to students and that these teachers would persist longer, provide a greater academic focus in the classroom and exhibit different types of feedback than teachers who had lower expectations of their ability to influence student learning. Conversely, teachers who scored low on both general and person efficacy were expected to give up readily if they did not get results (as cited in Tschannen-Morgan, Woolfolk Hoy, & Hoy, 1998, p. 213).

Garvis, Twigg and Pendergast (2011), recognized the value of research of self-efficacy in perseverance. They identified research that supported the notion that preservice teachers' self-efficacy was related to desirable teacher practices: commitment to teaching, greater levels of playing and organization, decreased teacher burnout, innovative teaching methods and utilization of a wider variety of teaching resource (Garvis, Twigg, & Pendergast, 2011). Even with the rigors of the specialized, regimented FCS Education degree students still felt they could make a difference as a teacher and teachers in general make a difference.

The purposes of the courses within our program are to build students' confidence "to do", self-efficacy, through experiential learning opportunities. For example students learn in

a variety of lab settings. The FCS Ed major registers for two foods labs, two clothing construction labs, a child development lab, chemistry lab, food science lab, and complete labs in textiles, and interior design (Brigham Young University Idaho, 2013).

Undergraduates learn to construct a plaid shirt by sewing one in an apparel construction lab; they learn to manage meals by making a nutritious meal within a budget in a weekly meal management lab. In upper level classes, they will take on leadership roles by being the lead teacher in a child development lab and a lab instructor in a practical homemaking course for underclassmen; they serve on program planning committees in leadership roles and network with other FCS pre-professionals and teachers. Students also take the initiative to identify and initiate an industry based internship where they will work for seven weeks.

Finally, they are placed in a supervised student teaching situation with a mentor teacher. There they have the opportunity to observe effective FCS teaching, prepare lessons, teach real students and evaluate their own teaching. “Through goal setting, feedback, modeling, rewards, and self-efficacy assessment, family and consumer sciences can empower students to become more independent learners (Schulze & Schulze, n.d., p. 109). All these experiences lead to maintaining teaching efficacy.

### **Implications**

The purpose of this inferential study was to examine differences between freshman through senior FCS Ed. students on personal teaching and general teaching self-efficacy. Understanding these differences could be important to FCS Ed. instructors, to the BYU-Idaho FCS Ed. program and to FCS Education in general. In consideration of this study, in

relationship to important questions about FCS Education, we must understand the ideal notion of developing skills which can impact individuals, families and communities. If those skills are not being taught or perpetuated in some form the positive impact of a FCS teacher probably will not be met.

First for the FCS students, when students have high efficacy, they come prepared to the classroom, assured they can perform. Student may not have all the knowledge or ability but they are confident and at ease in a FCS classroom. This confidence assists in building warm, secure communities, climate, and culture (Stoll, 2013). Learning becomes enjoyable and relationships between student and instructors are reciprocal. Teachers' efficacy plays a role in shaping students' attitudes towards school, the teacher and the subject matter (Tschannen-Morgan, Woolfolk Hoy, & Hoy, 1998).

The FCS teacher- High self-efficacy leads teachers to: (1) Greater commitment to teaching (2) greater levels of planning and organizing; (3) decreased teacher burnout; and (4) utilization of a wider variety of teaching materials (Garvis, Twigg, & Pendergast, 2011). The present study supports the notion our students are gaining valuable experiences helping them to not only become good teachers and maintain their professional pursuits in the field of FCS.

Significance of this study to FCS Education in general is telling. As a small and unique study, the results may not be generalized to all FCS Ed students throughout the nation and world. But, such a snapshot could impress upon other institutions of higher education, who are offering FCS Education degrees, that teaching efficacy should be deliberately nurtured and studied.

The statement has been made, “We, as a FCS profession (are) on a “cusp” of a revolution” (Pendergast, 2009). One might believe this revolution could be in the way we nurture our new professionals, our pre-service teachers and our freshmen students just entering into college. The revolution could be addressed in not only the delivery of information through the traditional experiential routes, but through deliberate socialization efforts in assisting undergraduates in understanding their own power through teaching, focusing on what they receive and what they can give back with their own personal teaching skills and abilities.

A future need would be to conduct a longitudinal study of FCS students through their freshmen to senior years to see if, when, and how their teaching efficacy changes over time. Additional research could also be done on student leadership roles FCS Education students take on in school, work and community. This information could help to improve the curriculum of FCS education by providing understanding in serving our students better. The more we understand our student needs the more options we could offer them in such a vast field of study as FCS. Perhaps offerings could effectively expand into FCS Entrepreneur, FCS Event Planning, FCS Resource and Equipment Management or even to a traditional route, but more focused as FCS Extension. Understanding how to improve or develop efficacy in students would assist administrators and program leaders to better develop course sequencing and experiences to nurture more efficacious professionals.

### **Limitations**

1. The study is limited to a private, church related and church directed university in Southeast Idaho. Because of the structure of the university, generalizing to other universities should be cautioned. Even though the design of this study should

overcome much of this concern, we must note that the university structure itself is a limiting factor in generalizing results. All students at BYU –Idaho must follow the moral directives of the institution, must live under a specific code of conduct, must live in university approved housing, and must attend chapel regularly. All of these institutional factors affect this population uniquely therefore data about this population should not be generalized to other university populations.

2. BYU-Idaho students as members of the Church of Latter Day Saints are not typical students. Many have served an 18 month mission which demands mature practice and application of self and resources. Though many other college students in other institutions have experiences like the mission, it is not a general expectation of all the population. Thus the population does not appear typical of other universities, and the results of this study should be cautioned as to generalizing to all college populations.
3. The study is limited because women enrolled in FCS are members of the LDS church and have received specific religious training directed toward the family and the role of the woman, which could bias the results of this study.

### **Summary**

In summary, grade level did not make a significance difference in student's PTE or GTE scores, however there were differences in scores. Differences can be explained by prior student life experience and training, idealism, the FCS program sequencing-the deliberate organization of FCS experiences and the student's personal connection or commitment to FCS teaching as a profession. Students entered the programs with an above average level of teaching self-efficacy which should support them through the rigors of higher education in a

FCS Ed. It appears the baccalaureate program did not significantly increase or diminish student's personal teaching self-efficacy or general teaching self-efficacy.

The purpose of this inferential study was to examine differences between freshman through senior FCS Ed. students on personal teaching and general teaching self-efficacy. Understanding these differences could prove important to FCS Ed. instructors, to the BYU-Idaho FCS Ed. program and to FCS Education in general.

Chapters 5 and 6 include a discussion of a group research project in which we assessed general self-efficacy in 311 students, of which 13% were FCS Ed. students. We found our students at BYU-Idaho scored significantly higher in general self-efficacy than many similar populations. We propose our students are unusual and unique because of their lived experiences (see chapter 5). BYU-Idaho is a university of innovation with such key factors as (1) a student centered university, (2) beliefs in extraordinary possibilities in ordinary people, (3) experientially focused learning model, (4) inspired inquiry and innovation, and (5) the understanding of the learning and teaching process (Christensen & Eyring, 2011; Institution Learning Model, 2013). This results in students who are well rounded and grounded due to life experiences and deliberate experiential learning opportunities provided them.

The question asked of FCS in the next 100 years should not only be what are "we" doing? But, what do "they", the next generation of FCS professionals, perceive about their ability to teach? Those in this study scored high in general self-efficacy, general teaching self-efficacy and personal teaching self-efficacy. This group of FCS Ed. students, do believe they can teach and make a difference in the 21st century

## **Chapter 5: Undergraduate Student Self-Efficacy in Experiential Learning Programs: a Group Study**

Tom Anderson, Julie Buck, Cheryl Empey, and Jim Hopla

### **Introduction**

We teach at a private, church sponsored university in the Northwest. As a group, our purpose was to research the value of experiential education for students who are taught andragogically and to measure self-efficacy through such a teaching platform.

The mission of our institution has four main elements and centers on student development and participation, as well as providing a learning atmosphere that facilitates individual growth. The first is to build testimonies of the restored Gospel of Jesus Christ and encourage living the Gospel's principles. The second is to provide a quality education for students of diverse interests and abilities. The third is to prepare students for lifelong learning, employment, and their roles as citizens and parents. The last is to maintain a wholesome academic, cultural, social, and spiritual environment (Mission of Institution, 2008).

Our institution, with an undergraduate educational focus, uses the Learning Model: Prepare, Teach One Another, and Ponder/Prove, where students are involved and responsible for their own learning (Institution Learning Model, 2013). The model could be argued to be or at the very least include the tenets of experiential learning. Students are to be prepared, involved, engaged, reflective and able to prove their learning. Student preparedness, involvement, and engagement are also the tenets of teaching through an andragogist methodology. As previously mentioned, andragogy in the realm of education is known as adult learning. Adult learners, as opposed to pedagogical learners, "are self-directed, their

learning is performance-centered, and they pull heavily from their accumulated and ever increasing reservoir of experience”. Knowles, Holton, and Swanson (1998) state, a key element to adult learning is the person, not the subject matter. Learning involves change not only with the student i.e. the adult learner, but also with the ability “to do”. It enables the learner to change behavior “as a result of experience” (Haggard & Crow, 1963, p. 20).

Our three programs, Family & Consumer Sciences Education (FCS Ed), Health Science, and Recreation Management, in which we teach, specifically represent the mission of our institution and are the focus of this study. Our programs follow the experiential component of the institution’s Learning Model and are intended to build student self-efficacy through experiential learning courses.

We chose to examine student’s self-efficacy and their confidence “to do” using the General Self-Efficacy scale (GSE) developed by Schwarzer and Jerusalem (1995) as well as examine the relationship between student perceptions and student reported experiential learning opportunities.

### **Background of the Study**

For hundreds of years the American university has been one of change. In the beginning it was viewed as a community of masters and students. Today the university is “a whole series of communities and activities held together by a common name, a common governing board, and related purposes” (Kerr, 2001, p. 1).

One of the general purposes of all university communities is effective teaching and learning of disciplinary knowledge. Disciplines vary depending on the mission of the institution (Christensen & Eyring, 2011). Some institutions are large, centered on research



with multiple disciplines to supporting their mission. Other institutions are less research focused and their mission is directed toward a greater teaching emphasis. In either case, teaching and learning are priorities for both undergraduates and graduate students. Because teaching and learning are so important, assessment of effectiveness of the process is continually evaluated (Carnegie Foundation, 2014). However, the debate about effective assessment can be focused on different aspects of the teaching and learning process from how instructors present information to whether the teaching strategies used are effective within the community.

Interestingly, research on teaching and learning at the adult level is highly informed from the educating of children, which often is translated to the university or college setting. For example, in seventh century Europe, schools were created to prepare young boys for life in the priesthood (Kerr, 2001).

Since the indoctrination of students in the beliefs, faith, and rituals of the church was the principle mission of these teachers, they developed a set of assumptions about learning and strategies for teaching that came to be labeled '*pedagogy*,' literally meaning 'the art and science of teaching children.' Pedagogy, or teacher-directed instruction, places the student in a submissive role requiring obedience to the teacher's instructions. It is based on the assumption that learners need to know only what the teacher teaches them. The result is a teaching and learning situation that actively promotes dependency on the instructor. The model of education persisted throughout the ages well into the twentieth century and has been the basis of organization for our educational system (Knowles, Holton III, & Swanson, 1998).

The process of teaching children is called pedagogy from the Greek *pais*, *paidos*: the upbringing of a child and *-agogy* – teaching (Adler, 1998). Generally pedagogical skills in the teaching of children have focused on teachers and subjects, where students play a secondary role. An example of this is the organization of traditional classrooms, from elementary school to institutions of higher education; rows and seats all centered on the instructor (Kerr, 2001).

Historically, educators have questioned if *pedagogy* was an apt term for teaching all adults. Though learning concepts may be closely related, how an adult comes to learning and relates to the teacher may be very different. Since pedagogy is the art and science of teaching children, what then would be the art and science of teaching adults?

### **Andragogy**

Lindeman (1926) proposed the concept of *andragogy* and argued that this term is a better match of what actually occurs in adult learning, which centers on the student and his or her needs as well as interests. He built on the notion of *andragogy* and argued that education for adults should describe education as life and life as education (p. 9). Adult learning, thus would involve building or changing the person through life's experience.

If education is life, as noted by Lindeman (1926) and Knowles (1980), then life is also education. Often student learning, as defined by pedagogy, consists of vicarious substitution of the teachers' experience and knowledge for teaching application. However, Lindeman argues that psychology teaches us we learn through what we do, and therefore all genuine education should inspire us to keep doing and thinking together. Thus, according to Lindeman, experience is the adult learners living textbook (pp. 9-10), and all education comes from experience (Dewey, 1938). Lindeman as well as Knowles would argue that most adult

learners are self-motivated and willing “to do”, and experience assists in development of confidence in making change.

According to Knowles et al. (1998), adults therefore would and do learn differently than the adolescent or child. Typical pedagogical instruction aimed at children teaches to subject matter and not to the student. In contrast, adult learning or andragogy is more than acquisition of knowledge; it “emphasizes the person in whom the change occurs or is expected to occur. Learning is the act or process by which behavioral change, knowledge, skills, and attitudes are acquired” (Knowles et al. 1998, p. 11).

Lindeman (Lindeman, 1926) states that the andragogical model is predicated on four basic assumptions about learners, all of which have some relationship to our notions about a learner’s ability, need, and desire to take responsibility for learning. The assumptions are:

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy.
2. Adults’ orientation to learning is life-centered.
3. Experience is the richest source for adults’ learning.
4. Adults have a deep need to be self-directing (1926).

Individual differences among people increase with age (Knowles et al. 1998; Merriam, Caffarella, & Baumgartner, 2007). As individuals learn and grow the need to rely and use their experience in learning increases (Bower & Hollister, 1967; Cross, 1981; Iscoe & Stevenson, 1960; Smith, 1982; White, 1959; Bruner, 1961; Erickson, 1950; Erickson, 1959; Erickson, 1964; Getzels & Jackson, 1962). Experience, therefore, plays an important role in andragogy. According to Knowles et al. (1998) “the richest resources for learning reside in the adult learners themselves. Hence, the emphasis in adult education is on experiential

techniques...to adults experience is who they are” (p. 66). Andragogy and its relationship with experiential learning are vital to this present group study, for our participants are adult learners who are taught experientially.

### **Experiential Learning**

Andragogy methodologies often use experiential learning as one of the numerous teaching approaches focusing on experience (Knowles, 1980). The notion of experiential learning is not a new or revolutionary idea in education. In 1938, Dewey argued that all genuine education comes from experience and the best classroom teaching utilized hands on experience (Dewey, 1938). Forty years later, Kolb (1984) stated experiential learning is the process whereby knowledge is created through the transformation of experience. Experience is the central role in the learning process (Kolb, Boyatzis, & Mainemelis, p. 2) and as Morrison and Branter’s (1992) research found, experiential learning accounts for over 70% of individual development. Experiential learning has steadily gained popularity and acceptance in higher education and “serves as a valuable resource for learning and teaching” (Kolb & Kolb, 2006).

According to Kolb (1984) and Smith (2011), there are four basic elements to experiential learning: concrete experience, observation and reflection, abstract conceptualization and active experimentation. First concrete experience, the student must be actively involved in the experience. Second observation and reflection, they must be able to reflect on the experience. Third abstract conceptualization, the student must be able to analyze and conceptualize the experience. Fourth active experimentation, they must have the problem-solving skill to use the new ideas gained from the experience.

O'Connell (2005) argued that after learning a concept, student application of knowledge in their environment provides an opportunity to practice a new insight. Once the student has used this new knowledge in a social setting, they can improve confidence and are more motivated to repeat the new skill.

### **Experiential Learning and Self-Efficacy**

The rewards of experiential learning come in several forms. Ewert and Garvey (2007) state the outcomes of experiential learning include personal growth, moral, group, and leadership development. For this present study, we focused on collecting data from only one element of Ewert and Garvey's list of experiential learning outcomes: personal growth. Personal growth was chosen because of its innate relationship to self-efficacy. Both, personal growth and self-efficacy are measures of understanding individual self-confidence (Bandura, 1982; 1986; 1991; 1994). Our choice was based on the academic need to measure success (Christensen & Eyring, 2011) of our hands-on courses. Our institution has an innovative mission of developing personal growth and career readiness.

Personal growth is characterized by changes in self-concept, self-esteem, personal motivation, and confidence. As Bandura (1986) so aptly noted in his ground breaking work in *Social Cognitive Theory* (SCT), confidence is a key component in one's belief and ability to perform a learned task, which is also known as self-efficacy. Self-efficacy simply refers to a judgment a student makes about his or her ability to accomplish a specific future task (Bandura, 1982).

The judgment of being able to accomplish a task appears to affect many activities. Beauchamp, Rhodes, Kreutzer, and Rupert (2011) described a study conducted with students who ran a race. They illustrated through their results those students who were "experientially-

primed” with more running experience reported significantly higher levels of self-efficacy and desire to participate in physical activity compared to the students who were more “genetically-primed” in good physical condition (2011, p. 12).

### **Self-Efficacy and the Social Cognitive Theory**

Albert Bandura’s 1963 *social learning theory* described three important influences on learning: imitation, reinforcement patterns, and self-control (Bandura & Walters, 1963). In 1986, Bandura renamed the social learning theory, *social cognitive theory* (SCT) by adding the construct of *Self-Efficacy*. SCT (Bandura, 1986) has a core set of determinants through which knowledge and information is transferred into practice. The theory has nine constructs (Bandura, 2004) which support the application to andragogical learning. The nine constructs are:

- Knowledge-learning facts and gaining insights related to an action, idea, object, person, or situation.
- Outcome Expectancies-anticipation of the probable outcomes that would ensue as a result of engaging in the behavior under discussion
- Outcome Expectations-value a person places on the probable outcomes that result from performing a behavior.
- Situations Perception-how one perceives and interprets the environment around oneself.
- Environment-physical or social circumstances or conditions that surround a person
- Self-Efficacy-confidence in one’s ability to pursue a behavior

- Self-Efficacy to Overcoming Impediments-the confidence that a person has in overcoming barriers while performing a given behavior.
- Goal Setting or Self Control- setting goals and developing plans to accomplish chosen behaviors.
- Emotional Coping- techniques employed by a person to control the emotional and physiological states associated with acquisition of a new (p. 144) behavior.

Though all components of this model are important, one major component, self-efficacy (Bandura, 1977; 1982; 1986; 1994; 1997), is often studied to learn about confidence and applied to academics (Schunk, 1991; 1996), career development (Betz, 2006; Betz & Hackett, 1981; Betz, Klein, & Taylor, 1996; Betz & Schifano, 2000; Lent, 2005; Lent, Brown, & Hackett, 1994), and health (Bandura, 1991; Bandura, Reese, & Adams, 1982; Bandura, Taylor, Williams, Mefford, & Barchas, 1985). Self-regulated learning has been effectively applied to education in addition to the preceding topics (Cleary & Zimmerman, 2004; Zimmerman, 2000).

Bandura (1997) described self-efficacy as the “belief in one’s capabilities to organize and execute the courses of action required to produce given attainment” (Bandura, 1997, p. 3). Harrison & McGuire (2008) state that self-efficacy is one’s perception of his/her ability to perform a specific activity. The main idea supporting self-efficacy is the perception of one’s belief in one’s own ability “to do”. Self-efficacy beliefs determine how one feels, thinks, behaves and even what motivates. There are four ways self-efficacy is developed:

1. Mastery Experience-enabling the person to succeed in attainable but increasingly challenging performances of desired behaviors. The experience of performance mastery is the strongest influence on self-efficacy belief.

2. Social Modeling, Vicarious Experience-Showing the person that others like themselves can do it, which should include detailed demonstrations of the small steps taken in the attainment of a complex objective.
3. Improving Physical and Emotional States, Physiological States-Making sure people are well-rested and relaxed before attempting a new behavior, which can include efforts to reduce stress and depression while building positive emotions—as when “fear” is re-labeled as “excitement.”
4. Verbal Persuasion, Social Persuasion- Telling the person that he or she can do it. Strong encouragement can boost confidence enough to induce the first efforts toward behavior change (Bandura, 1997, p. 79).

We believe our institution’s learning platform is highly effective in providing experiences which develop self-efficacy. As a student centered institution social modeling through group work, student internships and student lead discussions provide opportunities to demonstrate mastery experience.

### **Set the Problem**

Currently our students are expected to meet not only program expectations but in two of our programs, students must meet credential expectations. Thus, our undergraduate students are facing challenges in the areas of program confidence and degree expectations. These challenges often result in student dropout, student professional attrition, and lack of degree application. Research shows individuals with high levels of self-efficacy are more confident in their ability to perform a certain task, or accomplish a difficult challenge



(Bandura, 1994; Caulkins, White, & Russell, 2006; Cervone & Peake, 1986; Hechavarria, Renko, & Matthews, 2011).

Our institution's Learning Model includes experiential learning. The more we can study and investigate undergraduate students and their confidence to succeed, the more we can effect changes and improve programming. Understanding the relationship between experientially taught courses and the value the students receive from taking these courses will bring further understanding about the learning experience, for both the student and for us the educators.

Considering the above, the present study should help answer the question regarding the relationship between student perceptions of professional preparation and experientially taught courses. It will also help to measure general self-efficacy.

### **Purpose Statement**

The purpose of this descriptive study was to examine general self-efficacy and the relationship between student perceptions of professional preparation and student reported experiential learning opportunities across three university program areas.

### **Hypothesis.**

No relationship exists between student perceptions of professional preparation and student reported experiential learning opportunities across three university programs area.

## Significance of Study

One of our programs, FCS Ed, lies in the field of Career and Technical Education. In general, a connection exists between experiential learning and self-efficacy in Career and Technical Education (CTE) programs. These programs have traditionally required experiential learning modes for their hands-on trades and rely heavily on experience (Clark, Threeton, & Ewing, 2010). In FCS Ed, a (CTE) course of study, educators are advised to build students' self-efficacy. Measuring whether FCS Education actually does so would be beneficial in supporting the future of the program within the mission of the institution. In addition, if we find that self-efficacy improves we know that our students are being well served.

The connection to experiential learning and self-efficacy within the field of recreation is also evident (Ewert, 1989; Webb, 1999). Recreation Management programs tend to support experiential learning methods. However, an investigation into the correlations between self-efficacy and programs typically associated with experiential learning, such as Recreation Management, would be of benefit to the students and faculty within the program and administration.

Confidence “to do” developed through experiential learning is important for students to apply the seven core competencies (McKenzie, Neiger, & Thackaray, 2013) in Health Science. Students after graduation are highly successful in the field if they know how “to do” rather than just know. The Health Educator Job Analysis which describes the practice and scope of Health Science states, “Baccalaureate programs in health education should prepare health education graduates to *perform* all seven of the health education responsibilities” (National Commission for Health Education Credentialing, 2010, p. 5). Thus if our program

in Health Science does improve self-efficacy, we know we have served the students well and prepared them for the profession.

Our institution of higher education appears to be different in the way it models and describes higher education. In 1997, President David A. Bednar challenged the faculty in his first all-employee meeting after becoming president to ponder about how we think and to set goals so high that we cannot imagine reaching the results through our existing processes (Worrell, n.d.). Building on this philosophy, President Kim B. Clark, the current president of BYU-Idaho, introduced three imperatives in his inaugural address which outlined this vision.

1. Raise substantially the quality of every aspect of the experience our students have.
2. Make a BYU-Idaho education available to many more [students].
3. Lower the relative cost of education (Clark K. B., 2005).

What makes BYU-Idaho different is the way the imperatives are implemented. The first is the use of the student centered Learning Model. The Learning Model includes three principles: (1) preparing to learn, (2) teaching one another, and (3) pondering and proving one's learning (Institution Learning Model, 2013). The Learning Model involves "instructors becoming responsible for dual competency, mastery of both the subject matter and the art of conveying it for maximum student learning" (Christensen & Eyring, 2011, p. 259). Clarke followed a similar teaching method from C. Roland Christensen during his days at the Harvard Business School. Christensen argued:

Great teaching not only engages students but makes them partners with the instructor in the learning process. That partnership requires a teaching and learning 'contract' running both between instructor and student and also among the students themselves.

The contract includes the course syllabus, with its assignments and grading standards, but goes much further. It embodies the expectation that students and instructors will come to class prepared to teach one another in an environment of mutual trust and respect (Christensen & Eyring, 2011, pp. 258-259).

The partnership demonstrates effectively the use of andragogy as explained by Knowles et al. (1998) when he argued that the student is an active participant rather than a passive recipient.

The second way is in the introduction of “Foundations;” a new approach to general education (GE) classes. The Foundations program is designed to train students as “well prepared active classroom learners, and they would expect to be challenged accordingly in non-Foundations courses as they progressed toward graduation” (Christensen & Eyring, 2011, p. 264).

The third way addresses the quality outside of the classroom, which includes the university honor code or rules and regulations for conduct around campus. It is not only the responsibility of the individual to follow the rules but it is the responsibility of each person to help each other honor the standards (Brigham Young University-Idaho, 2013).

The fourth way involves sacrifice on the part of the faculty. Faculty teaches three semesters or “tracks” per year and participates in rotation of Foundations teaching.

Christensen and Eyring (2011) state:

The sacrifice of working year-round for the sake of creating a third semester truly equivalent in quality to the other two was permanent. So was supporting the university’s decision to raise average class sizes. Though the Learning Model and the carefully designed Foundations courses allowed this to occur without negative impact

on the student learning experience, it increased the faculty's burden in grading and student advising. Defying tradition required more than just innovation; it also required working harder (p. 273).

Our programs follow the above model. It is anticipated that our students would increase their ability "to do".

## **Procedures**

The effect of experiential education on self-efficacy in undergraduate students enrolled in the three programs; health science, FCS Ed., and recreation management was measured using the General Self-Efficacy Scale (GSE) developed by Schwarzer & Jerusalem (1995) (See Appendix E)<sup>1</sup>. We first wanted to know how our students performed on a general self-efficacy scale. We then wanted to know how the university students perceived the knowledge and value of their program in accomplishing their experiential courses.

We emailed all registered students in the three different program areas of: Family and Consumer Science, Health Sciences, and Recreation, and invited them to participate in the student assessment. The e-mail invitation included a hot-link to the Qualtrics (2002) site at our institution. Our Qualtrics tool included the GSE scale (see Appendix F) and our six questions of experiential learning plus some general demographic information. The University of Idaho Institutional Review Board approved the study Exempt certification for IRB project #13-145 (see Appendix G)<sup>1</sup>. Once student consent was granted, the participant was able to complete the instrument. Upon completion the student no longer had access to the instrument. Every two weeks following the initial distribution, a reminder e-mail was sent to

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<sup>1</sup> Scott Bergstrom stated reciprocal approval to conduct study at BYU – Idaho.

only those who had not yet completed the assessment. The instrument was open for six weeks.

### **Participants.**

Participants were undergraduate students from a private church sponsored university in the northwest majoring in three programs of study, FCS Ed, Recreation Management, and Health Sciences. A convenience sample was taken of 561 students from the three programs with 13% from FCS Ed, 17% from Recreation Management, 61% from Health Science and with 9% unusable. Of the final sample, 19% freshman, 23% sophomore, 24% junior, and 33% senior level students completed the assessment. Final participants included 311 students (n= 69 males and 242 females).

### **Protection of subjects.**

All participants were 18 years old or older. Protection of participants was assured through the University of Idaho IRB process (see Appendix G). Students were informed of their rights and gave their consent.

### **Instrument.**

Our study used the General Self-Efficacy scale (GSE) developed by Ralf Schwarzer (Schwarzer & Jerusalem, 1995; Rimm & Jerusalem, 1999). The 10-item general self-efficacy Likert type scale defines one's perceived self-efficacy. The possible range of scores for the GSE is 10-40 with 40 being the highest score possible. The participants answered each question using the following scale of: 1=not at all true, 2=barely true, 3=moderately true, and 4=exactly true. Studies show the GSE has high reliability, stability, and construct validity (Laganger et al., 2000; Schwarzer, Mueller, & Greenglass, 1999). The scale has been used in

numerous research projects, where it typically yielded internal consistencies between 0.75 to 0.91 (Schwarzer et al., 1999). A letter of permission can be found in the appendix (see Appendix H).

The instrument gathered three sets of data: demographics, GSE scores, and student perceptions. Participant demographics gathered basic information such as: major, gender, and year in school.

In addition to the GSE scale, we designed six additional questions to assess student perceptions in regards to experiential courses and/or experiences. Five questions assessed values and perceptions regarding experiential learning. We anticipated these five questions would inform us about the relationship between experiential learning and perceptions of professional preparation. A sixth question was added to assess the frequency of experiential application. The six Likert-type additional questions were:

1. To what extent do your experiential courses help you feel confident in preparing a lesson? 1=Great, Much=2, Some=3, Little=4, None=5.
2. To what extent do the experiential courses prepare you to design or apply the concepts you have learned? 1=Great, Much=2, Some=3, Little=4, None=5.
3. To what extent do you value your program? 1=Great, Much=2, Some=3, Little=4, None=5.
4. To what extent do you believe experiential learning improves your knowledge to perform in your profession? 1=Great, Much=2, Some=3, Little=4, None=5
5. To what extent do you value your hands-on learning in your courses? 1=Great, Much=2, Some=3, Little=4, None=5

6. How many times in the last month did you apply hands-on practice? (Never, Less than once a month, Once a month, 2-3 times a month, Once a week, 2-3 times a week, Daily).

Scores for the first five experiential learning self-efficacy results were then compared to the number of times the students reported experiential learning application.

### **Data and Analysis.**

The study used descriptive assessment methods. All data were analyzed using descriptive statistics and Pearson Correlation techniques in SPSS version 19.0. Five hundred and sixty-one students (561) agreed to participate in the study. Of the 561 students, 327 students met the criteria of currently being enrolled in Family & Consumer Sciences, Health Sciences, or Recreation. All data were then screened for incomplete information and answers. Those who did not answer both assessments were removed from the data set (16 assessments were removed) for a final sample size of 311.

### **Results**

The purpose of this descriptive study was to examine general self-efficacy and the relationship between student perceptions of professional preparation and student reported experiential learning opportunities across three university program areas.

#### **Measure of general self-efficacy.**

The participants were 311 freshman, sophomore, junior, and senior level students (n=69 males and 242 females) in three program areas within one university. For General Self-Efficacy the participants scored  $34.16 \pm 3.66$ . Possible ranges of scores runs between 10 and 40.



### **Statistical hypothesis of relationships.**

No relationship exists between student perceptions of professional preparation and student reported experiential learning opportunities across three university programs areas.

A significant moderate positive relationship was found between student perceptions about their program preparation and students reported experiential learning opportunities across three university program areas  $r=.336$ ,  $p=.0001$ ,  $r^2=.11$ ,  $n=311$ . Mean personal perceptions about their knowledge and preparation in their programs= $21.76\pm 2.9$ ; mean reported experiences= $4.87 \pm 1.66$ . Program experiences account for approximately 11% of the variability in program self-efficacy. Approximately 89% of the variability in personal perceptions about preparation in their programs is unaccounted for in this equation.

### **Discussion**

Our study set out to first to examine general self-efficacy and then the relationship between student perceptions of professional preparation and student reported experiential learning opportunities across three university program areas. In order to address this relationship we hypothesized the following: no relationship exists between student perceptions of professional preparation and student reported experiential learning opportunities across three university programs area.

The institution's mission (Mission of Institution, 2008) and the Learning Model (Institutional Learning Model, 2013) center on student development and participation. It also provides a learning atmosphere which facilitates individual growth. The purpose of the courses within our programs is to build students' confidence to perform through experiential learning opportunities.

In our study, generally, we found self-efficacy is quite high when students enroll in their major program courses of FCS Ed, Recreation, and Health Science. The scale we used has a high of 40. Our students scored a  $34.16 \pm 3.66$ . In a seminal study examining the psychometric properties of the GSE Scale, 25 samples were taken, each from a different country with a total of 19,120 participants (Knowles M. S., 1980). The mean score for general self-efficacy was  $29.55 \pm 5.32$ . The highest values were found for the Costa Ricans and Danes, 33.19 and 32.87 respectively (no standard deviations reported). A mean score of  $34.16 \pm 3.66$  is 4.61 points higher than the mean score of all samples combined and 0.97 points higher than Costa Rica's general self-efficacy score of 33.19 (no standard deviations reported) (Scholz et al., 2002).

As researchers and professional practitioners, this has significant meaning to us. Since self-efficacy is a measure of one's perception of the confidence and ability "to do", we believe that perhaps students self-select these programs because they have confidence they can meet the rigors of the program and also the mission of the university. It would appear students choose one of the three programs because they were confident they could be successful in accomplishing the specific degree. The confidence appears to stay at a high level throughout their time at the university.

The potential reasons why our general self-efficacy scores are higher may be because our university students on average are older; many have completed a church mission prior to attendance, and a high percentage of the population are defined as no longer emerging adult, but adults. Our students are enrolled in a private, religious institution in which 62.8% of them have served an 18-24 month missions, nationally and abroad (Wylie, 2014). As part of this mission, the students have no contact with family and friends beyond mail. They are

responsible for their own financial resources and make decisions based on their own independence. Of the 15,584 students enrolled in the fall 2013 semester, 26.5% of them are married (Institutional Fact Sheet, 2013). A study conducted by Arnett (1998) concludes the top two criteria for transition into adulthood, these criteria are, *accepting responsibility for one's self* and *making independent decisions*. Using these two measures for determining ones' transition into adulthood, an argument can be made that a large number of the students at our university are adults and not emerging adults. Thus an andragogical, experience centered approach would be appropriate.

The student GSE scores maintain approximately the same level throughout their four year program of study. The correlation informs us that our programs and the way the programs are taught are not eroding our student's confidence "to do" their academic experiences, rather our programs keep our student self-efficacy at a high level where they can be successful and accomplish their degrees.

Our university has been identified as an innovative university (Christensen & Eyring, 2011). One of the missions of our institution is for students to be involved in experiential learning. We wondered how students perceived the knowledge and value of their program in accomplishing their experiential courses. The five additional questions informed us there was a positive relationship between the general self-efficacy and program outcomes.

The five additional questions examined the relationship between the experientially based courses and the confidence the participants have as a result. According to the literature (Ewert, 1989; Webb, 1999) there is a connection between experiential learning and self-efficacy; for this purpose we wanted to examine three experientially taught programs and self-efficacy.

The first two questions addressed the confidence the participants had to use the knowledge they learned from their experientially taught course while questions three and five addressed the value placed on the program and the hands-on learning in the courses. Question four addressed experiential learning as a way to improve their knowledge to perform in their different professions.

In analyzing these questions in relation to the number of times the students reported experiential learning, we discovered there also appears to be a moderately strong relationship in what they perceive is their ability to know and perform the program requirements. A moderately strong relationship means there is a correlation between the student perceptions about their program preparation and student reported experiential learning opportunities. In other words, the students believe their experiential learning was of value to their professional preparation.

As professors in these programs this informs us our programs are building students' confidence to teach program content, confidence to apply attained knowledge, and confidence to perform in their future profession. We therefore reject our hypotheses: no relationship exists between student perceptions of professional preparation and student reported experiential learning opportunities across three university programs area, because there is a relationship between student perception of preparation and experiential learning opportunities.

In summary, we learned the students entered the programs with a high level of self-efficacy. We also found the rigors of higher education in three specific baccalaureate programs did not diminish student self-efficacy. We have stated potential reasons for this such as life experiences including age, missionary experience and marriage. We also argue university innovation as a key factor such as (1) a student centered university, (2) beliefs in

extraordinary possibilities in ordinary people, (3) experientially focused learning model, (4) inspired inquiry and innovation, and (5) the understanding of the learning and teaching process (Christensen & Eyring, 2011; Institution Learning Model, 2013).

### **Implications for Future Research**

We originally believed that our programs, because of their intention and teaching methodology, would build self-efficacy. Our results did not necessarily find such, but our results did provide a descriptive view of our students, our programs, and student perceptions about their experiential learning experience. Our students and university are unique and different and the difference has meaning for future research. These findings have several implications for both planning curriculum to include experiential learning and assessing self-efficacy, mainly for the purpose of enriching the teaching and learning experience within undergraduate universities.

Educators new to experiential learning may question the academic value of this type of educational practice. Our research demonstrates our students come to us with high levels of self-efficacy and our educational programs do not degrade or improve the high level of self-efficacy of students as they travel through an experiential learning environment in Family and Consumer Sciences Education (FCS Ed.), Health Science and Recreation Management courses. The connection between experiential learning and self-efficacy is not new (Dewey, 1938; Knowles, Holton, Swanson 2012; Bandura, 1994). Experience is the very medium to demonstrate our level of learning. Self-efficacy, the confidence “to do” a behavior, is paramount to life-long learning. Fink (2003) describes this learning as “indirect or vicarious ‘doing’ experiences” (p. 109), which may include group work, case studies, simulations or role-playing to name a few. Experiential learning provides the medium to engage in activities

within the classroom without risks inherent in a real situation. These experiences help to build and maintain self-efficacy among freshman through senior students at our innovative university.

Our students are uniquely different and because they are, the results cannot be applied to other programs. However, the use of experiential learning techniques used at BYU – Idaho, such as group work, case studies, internships, and externships must be considered additions to effective curriculum planning. Educators and program planners can benefit from adding self-efficacy assessment into their evaluation of students in their programs. The knowledge can lead to better implementation of learning experiences to build and maintain self-efficacy levels among all ranks of undergraduate students. The GSE scale, with the six additional questions that we developed, should be used by other curriculum researchers in experiential programs to determine experiential learning self-efficacy.

### **Limitations of the Current Study**

Because our institution is religious focused, based, and directed, there are limitations in applying the results to the greater secular world. Our students are older and many of them have had life changing adult experiences. Over 25 percent of the student population in fall semester 2013 were married (Institutional Fact Sheet, 2013). Enrollment statistics from fall semester 2013 reveal 6415 students (41%) had spent 18 – 24 months serving a proselyting mission for the Church of Jesus Christ of Latter-Day Saints (Wylie, 2014). These individuals often learn a new language and culture while living thousands of miles from home. They must be articulate, focused, and directed in their mission. They also are completely independent and success or failure is in their own hands, which sort of event is a maturing experience

intellectually, morally, and spiritually. Thus our students come to university as mature adults and their self-efficacy scores support the power of their life experiences.

At the same time, our institution's Learning Model is unique and innovative. Christensen and Eyring (2011) wrote a national best seller contrasting BYU – Idaho with Harvard. These unique differences are contrasted through the use of a DNA metaphor. Other institutions often pattern themselves after Harvard for its sustainability and quality of education. In 2000 BYU-Idaho administration made distinct changes to their DNA by announcing that it would no longer follow a traditional higher educational model. It was to become a four-year university and serve only undergraduates using a year-round track system designed to serve as many students as possible. The “ordinary student” was to receive a “first-class education” (Christensen & Eyring, 2011, p. 27). Along with this announcement came the elimination of all intercollegiate athletic programs and faculty tenure tracks. Emphasis was placed on the scholarship of teaching and learning. The institution's goal was to offer a high quality education to more students at a decreased tuition cost. These drastic changes were seen as “genetic engineering”. Christensen and Eyring recognized that “some may doubt” the use of such a unique place as a model for other institutions (p. 28). We disagree. We don't doubt because we have been a part of the experience.

Another limitation of our study is that we evaluated only three programs in our university. We don't know if the self-efficacy levels would be the same throughout other programs; that is something that should be measured. We intuitively believe that the general missionary experience of our students would equate to higher levels of GSE, but research should measure whether this is true. Also, our six questions about perception should also be

used within the general university populations to see if our phenomenon in our programs also exists across the university.

Because of the limitations listed above, we also would welcome others to use our interpretation of the GSE with its six additional questions in more secular university programs. Would a general student, not in an intense 18-24 month religious mission experience, have the same level of GSE or would their scores mimic the earlier work of Schwarzer et al. (1999) and Laganger et al. (2000)?

### **Future Directions**

Our innovative institution with its experiential focus might be further studied, especially considering the other constructs of Bandura's Social Cognitive Theory (1986). These might include: outcome expectations, knowledge, outcome expectancies, goal setting, and self-control. Morgan, (2014) conducted research on the "outcome expectancies" construct in relation to program and course outcomes. Outcomes are important to the students, programs, and the university.

BYU-Idaho's administration has placed an emphasis on Student Learning Outcomes and their connection with the mission statement; this too would be an important area for study. The Student Learning Outcomes give an increased understanding of what it means to "know," "do," and "become". Future research could focus on outcome expectancies in relation to self-efficacy to ferret out if our institution is supporting Student Learning Outcomes.

Given that we focused on one outcome of Experiential Learning, personal growth, (Ewert & Garvey, 2007) other outcomes could be studied to identify relationships between



experiential learning and general self-efficacy. Garvey (2007) states the outcomes of experiential learning include personal growth, moral, group, and leadership development. Since BYU-Idaho is a religious institution, moral and leadership growth in relation to self-efficacy would be an appropriate study. These outcomes are important to the Learning Model and mission of the University.

## **Chapter 6: White Paper**

### **From inside an Innovative University: Connecting the Dots of Learning and Teaching**

On Tuesday, June 20, 2000, the president of Ricks College, David A. Bednar, called together the college community for an important announcement from LDS Church President Gordon B. Hinckley. President Hinckley announced that Ricks College would henceforth become BYU-Idaho.

The announcement changed the future and direction of the university. The institution would emphasize undergraduate education, only award baccalaureate degrees, and faculty rank would not be part of the academic structure. BYU – Idaho would “operate year-round incorporating innovative calendaring and scheduling, intercollegiate athletics would no longer be a part of the university, and educational costs would be lowered to provide greater access to more students” (Christensen & Eyring, 2011, p. 228). Currently, over 15,500 students are enrolled at BYU – Idaho per semester with nearly 80 majors available (Brigham Young University-Idaho, 2013; Stevens, 2014).

The majors vary depending on the mission of the institution (Christensen & Eyring, 2011). Some institutions are large and research centered with a multitude of disciplines to support their mission. Other institutions are not as research focused and their mission is toward a greater teaching emphasis. Whichever is the case, teaching and learning is a central focus whether the student is a graduate student or an undergraduate student. Because teaching and learning is so important, assessment of effectiveness of the process is continually evaluated (Carnegie Foundation, 2014). However, the debate of effective assessment can be

focused on different aspects of the teaching/learning process from how instructors present information to whether the teaching strategies used are effective within the community.

In his first all-employee meeting as president of Ricks College, David A. Bednar, invited his colleagues to think about how we think and set goals so high that we cannot imagine reaching the results through our existing processes (Worrell, n.d). The aim is found in the unique BYU-Idaho Mission Statement and Student Learning Outcomes. Following that challenge, Henry B. Eyring stated the result of this rethinking as the graduates of BYU-Idaho will become:

...natural leaders who know how to teach and how to learn. They will have the power to innovate and improve without requiring more of what money can buy. Those graduates of BYU – Idaho will become... legendary for their capacity to build the people around them and to add value wherever they serve (Eyring, 2001).

When BYU – Idaho made the decision to move toward an innovative model, it also had a duty to prepare the faculty to meet the mission and needs of the university. One of the needs was to improve the education of its faculty and offer additional professional development. It was at this juncture that the University of Idaho was solicited to provide terminal degrees to a cohort of local educators from southeast Idaho.

### **Our Study**

In 2011, the cohort began its journey through the Ed.D program from the University of Idaho at its institution, BYU – Idaho. Four members of that cohort conducted an assessment of BYU – Idaho students from three experientially based programs; Family & Consumer Sciences Education (FCS Ed), Health Sciences, and Recreation Management. We as

instructors of BYU –Idaho wanted to first examine student self-efficacy and their confidence “to do” using a general self-efficacy scale (GSE) developed by Schwarzer and Jerusalem (1995), as well as examine the relationship between student perceptions and student reported experiential learning opportunities among freshman, sophomores, juniors, and seniors. Literature shows individuals with high levels of self-efficacy are more confident in their ability to perform a certain task, or accomplish a difficult challenge (Bandura, 1994; Caulkins, White, & Russell, 2006; Cervone & Peake, 1986; Hechavarria, Renko, & Matthews, 2011).

As a result of our assessment of 311 students we found self-efficacy is generally quite high when students enroll in their major program courses of FCS Ed, Recreation, and Health Science. The scale used has a high point of 40. The students scored a  $34.16 \pm 3.66$  and when compared to others the result is quite high (Scholz, Gutierrez-Dona, Sud, & Schwarzer, 2002). The data we gathered on general self-efficacy matched additional data that we collected in related research of GSE of our programs. In studies measuring the self-efficacy of business students and health science students, students scored a  $33.34 \pm 4.39$  and  $33.92 \pm 3.66$  respectively.

We learned that the students who entered our programs had a high level of self-efficacy. We also found the rigors of higher education in a baccalaureate program did not diminish student self-efficacy. We believe the potential reasons for these scores are due to age, missionary experience and maturity level of the students. We also argue university innovation as a key factor such as (1) a student centered university, (2) beliefs in extraordinary possibilities in ordinary people, (3) experientially focused learning model, (4) inspired inquiry and innovation, and (5) the understanding of the learning and teaching process (Christensen & Eyring, 2011; Institution Learning Model, 2013).

The student GSE scores, though not longitudinal data appear to maintain approximately the same level throughout their four-year program of study. The correlation informs us that the programs and the way the programs are taught are not eroding student's confidence "to do" their academic experiences, rather the programs keep student self-efficacy at a high level where they apply as well as be able to perform competencies.

As a part of our global study of self-efficacy at BYU-Idaho, three of us further studied GSE in BYU-Idaho students and major programs. Our personal areas of study echo the notion that measuring self-efficacy in various forms will provide a perspective into the student's confidence "to do". In one of our related studies, we focused on self-efficacy of BYU-Idaho students. Research was conducted regarding the effect a three-day adventure program had on self-efficacy of 90 business students. Adventure programming is the deliberate use of adventurous experiences to create learning in individuals or groups, which result in positive change for society and communities (Miles & Priest, 1999). Pretest, posttest, and post posttest general self-efficacy scores were measured using the GSE scale developed by Schwarzer and Jerusalem (1995). Results showed a high self-efficacy score initially ( $33.34 \pm 4.39$ ), and subsequent increased score following the posttest ( $34.12 \pm 3.47$ ) and post posttest ( $35.54 \pm 3.09$ ), which shows that once again our business students' GSE is high. It also shows adventure programming should increase GSE scores of the business students as well. However, it was not shown adventure programs increase one's ability in selecting a business product, overcoming failure, or having a successful business.

A second study was designed to first examine general self-efficacy and then the relationship between the Health Science program goals and GSE. The study assessed 166 junior and senior students majoring in Health Science with 31 male and 135 females

participating. Along with the mission of the institution and the Learning Model, the program's goals are centered on student development and active participation associated with the profession's seven core competencies (National Commission for Health Education Credentialing, 2010). The purpose of the program and its experiential based courses is to build students' confidence to perform through opportunities. The GSE assessment showed that self-efficacy is high for Health Science students in their junior and senior year. Out of a scale of 40, the students scored a  $33.92 \pm 3.66$ . The second part of the study showed a significant relationship between Health Science students GSE scores and assessing/evaluating ( $r = .364$ ), planning/implementing/administering ( $r = .382$ ) and serving/communicating ( $r = .376$ ) health education programs.

A third study examined the differences between freshman through senior FCS Ed. students on *personal teaching (PTE)* and *general teaching self-efficacy (GTE)*. Of the participants, 53 scored above average on their PTE. PTE mean scores were 11.37-12.74, which was a reverse scoring on a range from 6-30. The lower the number, the stronger ones positive perceptions, relative to teaching self-efficacy which translates into being high PTE score. GTE scores accounts for approximately 12.8% of the variability in one's personal teaching self-efficacy scores. The GTE mean scores were recorded as 16.8 to 20.25 on a 6-30 scale. They were average or above average scores. No significant change occurred as they proceeded from freshmen to seniors in their teacher preparation program but there were numerically differences in scores. Understanding these differences could be important to FCS Ed. instructors, to the BYU-Idaho FCS Ed. program and to FCS Education in general. The FCS teacher with high self-efficacy is expected to have: (1) Greater commitment to teaching

(2) greater levels of planning and organizing; (3) decreased teacher burnout; and (4) utilization of a wider variety of teaching materials (Garvis, Twigg, & Pendergast, 2011).

As a cohort of educators, one of our personal studies was not focused on education at BYU-Idaho, however, the purpose of the study was about GSE and its results also informs us about the importance of education and we have included it. A Diabetes Self-efficacy scale (DSES) assessment was given to 12 women with gestational diabetes mellitus (GDM) in three Southeast Idaho locations. A trend occurred in which the participants' level of self-efficacy increased with more visits to the certified diabetes educator. The participants' positive descriptive comments indicated a correlation with the instructor influence on perceived self-confidence to perform diabetes self-care practices. The information demonstrates the importance of including self-efficacy assessment as part of a teaching program and asking for anonymous comments from participants to inform instructors of their influence with students.

### **General Comments**

Our general study and each of our individual studies provides a lens to view the unique qualities found in students, how they see themselves, and their relationships with their instructors. Our studies inform us of the importance of education and the importance of life experiences in developing self-efficacy.

Because BYU-Idaho is a unique place and because our students are unique what we have learned is not generalizable to other populations. But what we have learned is place and experience does affect a student's ability "to do". We have also learned an intended intervention appears to affect an increase in self-efficacy (the adventure program study). If

we value GSE growth, more experiences like Adventure Education should occur for all of our students at BYU-Idaho.

We have also learned that our students have a high general self-efficacy – we cannot verify it is so because of the BYU-Idaho experience, but something in our student’s past experiences raises their GSE above the norm and their experience at BYU-Idaho does not erode the level. We believe this phenomenon of raised GSE is tied to the choice of religious mission, age, marital status, and perhaps the nature of their religious beliefs. Our students in health education and FCS are immersed in experiential courses, which they value, and believe they are prepared to meet the goals of their programs and future professions. All of this is linked to the confidence to do as measured by GSE but is also linked to the experiential nature of what we do at BYU-Idaho.

There is much more that can be studied using GSE at BYU-Idaho. The group study related specifically to Health, Recreation and FCS, yet there are many other programs within BYU-Idaho which would benefit from a similar study. Are there certain programs currently at BYU – Idaho which score lower in GSE, or are the scores relatively the same throughout? If other programs do score lower, are there any relationships between low GSE scores and student GPA. The same could be asked of programs with the highest levels of GSE, are there relationships between high levels of GSE and student GPA? Although valid and intriguing, these questions are out of the scope of our study.

BYU-Idaho has been identified as an innovative university (Christensen & Eyring, 2011) with a unique DNA. We have seen firsthand what Eyring stated about the graduates of BYU-Idaho as being “legendary.” Teaching and learning are not just acquisition of knowledge but transformation of the individual. The transformation comes from within and those students



can become “legendary” as well as leaders who are loyal and committed “not to an institution, but to a cause, a value” (Eyring, 2001).

The results from our studies show that the mission of BYU-Idaho, the Learning Model, and Student Learning Outcomes are what make BYU – Idaho both a unique and innovative university. We as instructors, by applying the mission of the university, empower students with significant learning experiences. These experiences not only build individual self-efficacy but develop our students to be lifelong learners.

## References

- Adler, M. J. (1998). *The paideia proposal. An educational manifesto*. New York: Simon & Schuster.
- Advancing teaching-improving learning*. (2014, January 8). Retrieved from Carnegie Foundation: <http://www.carnegiefoundation.org>
- Arnett, J. (1998). Learning to stand alone: The contemporary american transition to adulthood in cultural and historical context. *Human Development, 41*(5), 295-315.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review, 84*, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1991). Self-efficacy mechanism in physiological activation and health promoting behavior. In J. Madden, *Neurobiology of learning, emotion and affect* (IV ed., pp. 229-270). New York, NY: Raven.
- Bandura, A. (1994). Self-efficacy. In V. Ramachandran, *Encyclopedia of human behavior* (pp. 71-81). San Diego: Academic Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, New York: W.H. Freeman and Company.

- Bandura, A. (2004). Health promotion by social cognitive means. *Health Education and Behavior, 31*, 143-164.
- Bandura, A., & Walters, R. H. (1963). *Social learning and personality development*. New York, New York: Holt, Rinehart, and Winston.
- Bandura, A., Reese, L., & Adams, N. E. (1982). Microanalysis of action and fear arousal as a function of differential levels of perceived self-efficacy. *Journal of Personality and Social Psychology, 41*, 5-21.
- Bandura, A., Taylor, C. B., Williams, S. L., Mefford, I. N., & Barchas, J. D. (1985). Catecholamine secretion as a function of perceived coping self-efficacy. *Journal of Personality and Social Psychology, 53*, 406-414.
- Beauchamp, M., Rhodes, R., Kreutzer, C., & Rupert, J. (2011). Experiential versus genetic accounts of inactivity: Implications for inactive individuals' self-efficacy beliefs and intentions to exercise. *Behavioral Medicine, 8*-14.
- Betz, N. E. (2006). Developing and using parallel measures of career self-efficacy and interests with adolescents. In F. Pajares, & T. C. Urdan, *Self-efficacy beliefs of adolescents: A volume in adolescence and education* (pp. 225-244). Greenwich, CT: Information Age.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*, 399-410.

- Betz, N. E., & Schifano, R. (2000). Increasing realistic self-efficacy and interests in college women. *Journal of Vocational Behavior, 56*(1), 35-52.
- Betz, N. E., Klein, K., & Taylor, K. (1996). Evaluation of the short form of the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*(1), 47-57.
- Bower, E. M., & Hollister, W. G. (1967). *Behavioral science frontiers in education*. New York, NY: Wiley.
- Brigham Young University- Idaho. (2013). *BS in Family Consumer Science Education (940)*. Retrieved 2014, from <http://www.byui.edu/Documents/advising/advising/sequences/ug13/cehd/Family%20Consumer%20Science%20Education.pdf>
- Brigham Young University Idaho. (2013). *Catalog 2013-2014: Home and family department*. Retrieved March 18, 2014, from Brigham young university- idaho: <http://www.byui.edu/Documents/catalog/2013-2014/Home%20and%20Family.pdf>
- Brigham Young University-Idaho. (2013). *Catalog 2012-2013*. Retrieved December 20, 2013, from Brigham Young University-Idaho: <http://www.byui.edu/Documents/catalog/2012-2013/University%20Standards.pdf>
- Brown, J. R., Brown, L. J., & Brown, C. L. (2008). "Signs, signs, everywhere there's signs... and the sign says": You got to have a PRAXIS II membership card to get inside. *Teacher Education Quarterly* (Winter), 29-42.
- Bruner, J. S. (1961). *The process of education*. Cambridge, MA: Harvard University Press.

- Canrius, E. T., & Fokkens-Bruinsma, M. (n.d.). *European Journal of Teacher Education*, 1-17. Retrieved February 10, 2014
- Caulkins, M., White, D., & Russell, K. (2006). The role of physical exercise in wilderness therapy for troubled adolescent women. *Journal of Experiential Education*, 29(1), 18-37.
- Cervone, D., & Peake, P. (1986). Anchoring, efficacy, and action: The influence of judgmental heuristics on self-efficacy judgments and behavior. *Journal of Personality and Social Psychology*, 50(3), 492-501.
- Christensen, C. M., & Eyring, H. J. (2011). *The innovative university: Changing the DNA of higher education from the inside out*. Hoboken, NJ: Jossey-Bass.
- Christensen, C. M., & Eyring, H. J. (2011). *The innovative university: Changing the DNA of higher education from the inside out*. San Francisco, CA: Jossey Bass.
- Clark, K. B. (2005, October 11). *Inaugural Address*. Retrieved from Brigham Young University-Idaho: <http://www.byui.edu/a-new-kind-of-university/president-clarks-inaugural-address>
- Clark, R. W., Threeton, M. D., & Ewing, J. C. (2010). The potential of experiential learning and practices in career and technical education. *Journal of Career and Technical Education*, 25(2), 46-61.
- Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools*, 41, 537-50.

- Cross, K. P. (1981). *Adults as learners*. San Francisco, CA: Jossey-Bass.
- Department of Education. (2013). *IDAHO Education Jobs*. (S. Spring, Producer, & Idaho Association of School Administrators) Retrieved August 27, 2013, from High Need Areas: <http://idaho.schoolspring.com/content/idaho/highneedareas.cfm?>
- Dewey, J. (1938). *Experience and education*. New York, New York: The MacMillan Company.
- Duncan, J. (2001). Defining rigor in family and consumer sciences. *Journal of Family & Consumer Sciences Education, 1*(29).
- Dunn, K. T. (2011). Teaching teachers: An investigation of beliefs in teacher education students. *Learning Environments Research, 14*(1), 39-58.
- Erikson, E. H. (1950). *Childhood and society*. New York, NY: W. W. Norton.
- Erikson, E. H. (1959). *Identity and the life cycle*. New York, NY: International Universities Press.
- Erikson, E. H. (1964). *Insight and responsibility*. New York, NY: W. W. Norton.
- Ewert, A. (1989). *Outdoor adventure pursuits: Foundation, models, and theories*. Scottsdale, AZ: Publishing Horizons.
- Ewert, A., & Garvey, D. (2007). Philosophy and theory of adventure education. In D. Prouty, J. Panicucci, & R. Collinson, *Adventure education: Theory and applications* (pp. 19-32). Champaign: Human Kinetics.

- Eyring, H. B. (2001, September 18). *Brigham Young University-Idaho*. Retrieved September 13, 2013, from Devotionals:  
[http://www2.byui.edu/Presentations/Transcripts/Devotionals/2001\\_09\\_18\\_Eyring.htm](http://www2.byui.edu/Presentations/Transcripts/Devotionals/2001_09_18_Eyring.htm)
- Facts about BYU - Idaho*. (n.d.). Retrieved 2014, from Brigham Young University Idaho:  
<http://www.byui.edu/about/facts>
- Fink, L. D. (2003). *Creating significant learning experiences, an integrated approach to designing college courses*. San Francisco, CA, USA: Jossey-Bass.
- Fink, L. D. (2003). *Creating significant learning experiences*. San Francisco: Jossey-Bass.
- Fox, K. (2008, August). Rethinking experience: What do we mean by this word "experience?". *Journal of Experiential Education*, 31(1), 36-54.
- Garvis, S., Twigg, D., & Pendergast, D. (2011, June). Breaking the negative cycle: The formation of self-efficacy beliefs in the arts. A focus on professional experience in Pre-service Teacher Education (online). *Australasian Journal of Early Childhood*, 36(2), 36-41.
- Gavora, P. (2010). Slovak pre-service teacher self-efficacy: Theoretical and research consideration. *The New Educational Review*, 21(2), 17-33.
- Getzels, J. W., & Jackson, P. W. (1962). *Creativity and intelligence*. New York, NY: Wiley.
- Godbey, K., & Johnson, C. A. (2011). Career choice influences and job satisfaction for early career family and consumer sciences teachers. *Journal of Family & Consumer Sciences Education*, 29(2), 12-25.

- Gordon, H. R. (2008). *The history and growth of career and technical education in america*. Long Grove, IL: Waveland Press Inc.
- Haggard, E. A., & Crow, A. (1963). Learning a process of change. *Readings in Human Learning*, 19-27.
- Harrison, M., & McGuire, F. (2008). An investigation of the influence of vicarious experience on perceived self-efficacy. *American Journal of Recreation Therapy*, 7(1), 10-16.
- Hechavarria, D., Renko, M., & Matthews, C. (2011). The nascent entrepreneurship hub: Goals, entrepreneurial self-efficacy and start-up outcomes. *Small Business Economics: An Entrepreneurship Journal*, 1-22.
- Hinkley, G. B. (2007, April). *Let virtue garnish thy thoughts unceasingly*. Retrieved from The Church of Jesus Christ of Latter Day Saints Web site: [www.lds.org/general-conference/print/2007/04/let-virtue-garnish-thy-thoughts-unceasingly?lang=eng&clang=eng](http://www.lds.org/general-conference/print/2007/04/let-virtue-garnish-thy-thoughts-unceasingly?lang=eng&clang=eng)
- Home and Family Department. (n.d.). Family Consumer Science Education. *Raw Data*. Not Published. Retrieved 2013
- Hoy, A. (n.d.). *Instruments*. (Ohio State University) Retrieved October 2, 2013, from Anita Hoy, Ph.D; College of Education and Human Ecology: <http://people.ehe.osu.edu/ahoy/research/instruments>
- Hoy, W. K., & Woolfolk, A. E. (1993, March). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, 93(4), 355-372. Retrieved February 10, 2013, from <http://www.jstor.org/stable/1002017>



Institution Learning Model. (2013). *The learning model*. Retrieved June 15, 2013, from Brigham Young University-Idaho:

<http://www2.byui.edu/LearningModel/src/default.htm>

Institutional Fact Sheet. (2013). Enrollment figures for Fall 2013.

Iscoe, I., & Stevenson, W. W. (1960). *Personality development in children*. Austin, TX: University of Texas Press.

Kato, S. L. (2008). *Foundation of family and consumer sciences: Careers serving individuals, families, and communities*. Seattle, WA: The Goodheart-Willcox Company, Inc.

Kerr, C. (2001). *The uses of the university* (5th ed.). Cambridge, MA, United States: Harvard University Press.

Knowles, M. S. (1980). *The modern practice of adult education*. Chicago, IL: Association Press.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (1998). *The adult learner* (5th ed.). Houston, TX: Gulf Publishing Company.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2005). *The adult learner* (6th ed.). London: Elsevier.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2012). *The Adult Learner. The definitive classic in adult education and human resource development*. (7th ed.). New York: Routledge.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle River, NJ: Prentice Hall.

- Kolb, D. A., & Kolb, A. Y. (2006). Learning styles and learning spaces. In R. R. Sims, & S. J. Sims, *Learning styles and learning: A key to meeting the accountability demands in education* (pp. 45-92). New York, NY: Nova Science.
- Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (1999). Experiential learning theory: Previous research and new directions. *Perspectives on Cognitive, Learning, and Thinking Styles*, 1-38.
- Laganger, A., Kraft, P., & Roysamb, E. (2000). Perceived self-efficacy in health, behavior research: Conceptualization, measurement, and correlates. *Psychology and Health*, 15, 51-69.
- Lent, R. W. (2005). A social cognitive view of career development and counseling. In S. B. Brown, & R. W. Lent, *Career development and counseling: Putting theory and research to work*. Hoboken, NJ: Wiley.
- Lent, R. W., & Brown, S. D. (2006). On conceptualizing and assessing social cognitive constructs on career research: A measurement guide. *Journal of Career Assessment*, 12-35.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 34, 79-122.
- Lindeman, E. (1926). *The meaning of adult education*. New York, New York: New Republic.
- McFall, B., & Mitstifer, D. I. (2005). A century of change: Repositioning as a foundation for lifelong learning. *Journal of Family & Consumer Sciences*, 97(4), 7.

- McGregor, S. (2011). Home economics in higher education: Pre-professional socialization. *International Journal of Consumer Studies*, 35(5), 560-568.
- McKenzie, J. F., Neiger, B. L., & Thackaray, R. (2013). *Planning, implementing, and evaluating health promotion programs: A primer* (6th ed.). Boston: Pearson.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive Guide* (3rd ed.). San Francisco: John Wiley & Sons/Jossey-Bass.
- Miles, P., & Priest, S. (1999). *Adventure programming*. State College: Venture Publishing.
- Mission of Institution. (2008 йил 25-September). *Brigham Young University-Idaho who are we?* From Brigham Young University Idaho: [www.byui.edu](http://www.byui.edu)
- Monson, T. S. (2012, October). *Welcome to conference*. Retrieved from The Church of Jesus Christ of Latter Day Saints Web site: <https://www.lds.org/general-conference/2012/10/welcome-to-conference?lang=eng>
- Morgan, P. (2014, January). Helping students learn how to know, do, and become. *BYU-Idaho News & Notes*, p. 3.
- Morrison, R. B. (1992). What enhances or inhibits learning a new job? A basic career issue. *Journal Applied Psychology*, 77(6), 926-940.
- National Commission for Health Education Credentialing. (2010, February 8). *Health educator job analysis 2010*. (M. Rehrig, Ed.) Retrieved May 29, 2013, from National commission for health education credentialing inc.: [http://www.nchec.org/\\_files/\\_items/nch-mr-tab3-193/docs/heja%20press%20release%20020810\\_final-2-19-10.pdf](http://www.nchec.org/_files/_items/nch-mr-tab3-193/docs/heja%20press%20release%20020810_final-2-19-10.pdf)

- Nickols, S., Ralston, P., Anderson, C., Browne, L., Schroeder, G., Thomas, S., & Wild, P. (2009). The family and consumer sciences body of knowledge and the cultural kaleidoscope: Research opportunities and challenges. *Family & Consumer Sciences Research Journal*, 37(3), 266-283.
- O'Connell, W. (2005). Finding the shoe that fits: Experiential approaches for first practicum. *Guidance & Counseling*, 158.
- Pajares, F. (2013, 3 9). *Overview of social cognitive theory and of self-efficacy*. Retrieved from <http://www.emory.edu/EDUCATION/mfp/eff.html>
- Paul, J. L. (2005). *Introduction of the philosophies of research and criticism in education and the social sciences*. Upper Saddle River, NJ: Pearson.
- Pendergast, D. (2009). Generational theory and home economics: Future proofing the profession. *Family and Consumer Sciences Research Journal*, 37(4), 504-522.
- Qualtrics. (2002). *Homepage*. Retrieved June 21, 2013, from Qualtrics: [www.qualtrics.com](http://www.qualtrics.com)
- Rimm, H., & Jerusalem, M. (1999). Adaptations and validation of an Estonian version of the general self-efficacy scale. *Anxiety, Stress, and Coping*, 12, 329-345.
- Schaub, M., & Tokar, D. M. (2005). The role of personality and learning experiences in social cognitive career theory. *Journal of Vocational Behavior*, 66(2), 304-325.
- Scholz, U., Gutierrez-Dona, B., Sud, S., & Schwarzer, R. (2002). Is general self-efficacy a universal construct?: Psychometric findings from 25 countries. *European Journal of Psychological Assessment*, 18(3), 242-251.

- Schulze, P. A., & Schulze, J. M. (n.d.). Believing is achieving: The implications of self-efficacy research for family and consumer sciences education. *Research Application in Family and Consumer Sciences*, 105-113. Retrieved 2013
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.
- Schunk, D. H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal*, 33, 359-382.
- Schwarzer, R., & Jerusalem, M. (1995). General self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, England: NFER-NELSON.
- Schwarzer, R., Mueller, J., & Greenglass, E. (1999). Assessment of perceived general self-efficacy on the internet: Data collection in cyberspace. *Anxiety, Stress, and Coping*, 12, 145-161.
- Sharma, M., & Romas, J. A. (2008). *Theoretical foundations of health education and health promotion*. Sudbury, MA: Jones and Bartlett.
- Smith, M. (2011, November 12). *Learning from outdoor experience*. Retrieved from Infed: <http://www.infed.org/b-explrn.htm>
- Smith, R. M. (1982). *Learning how to learn*. Englewood Cliffs, NJ: Cambridge.
- Stevens, M. (2014, January 28). *BYU-Idaho releases enrollment figures for Fall Semester 2013*. Retrieved from Brigham Young University Idaho: <https://www.byui.edu/newsroom/10-14-13-fall-2013-enrollment>

Stoll, S. K. (2013, September). Second Visit to Idaho Falls Four. (C. A. Empey, Interviewer)  
Rexburg, Idaho.

Stone, D. (n.d.). *Social cognitive theory*. From University of South Florida:  
[http://www.med.usf.edu/~kmbrown/Social\\_Cognitive\\_Theory\\_Overview.htm](http://www.med.usf.edu/~kmbrown/Social_Cognitive_Theory_Overview.htm).

The Church of Jesus Christ of Latter-day Saints. (1995). *The family: A proclamation to the world*. Retrieved 2014, from <https://www.lds.org/topics/family-proclamation>

The Church of Jesus Christ of Latter-day Saints. (2009). *Young women: Personal progress*. Retrieved 2014, from <https://www.lds.org/young-women/personal-progress?lang=eng>

Tschannen-Morgan, M., Woolfolk Hoy, A., & Hoy, K. W. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*(2), 202-248.

Veit, H. Z. (2011, September 5). Time to revive home ec. *New York Times*, p. A27.

Webb, D. (1999). Recreational outdoor adventure programs. In J. Miles, & S. Priest, *Adventure programming* (pp. 3-8). State College, PA: Venture Publishing.

Werhan, C. R. (2013). Family and consumer sciences secondary school programs: National survey shows continued demand for fcs teachers. (S. L. Baugher, Ed.) *Journal of Family and Consumer Sciences, 105*(4), 41-15.

White, R. H. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, LXVI*, 297-333.

Worrell, R. (n.d.). (Unpublished Manuscript) History of Ricks College and Brigham Young University-Idaho: The Bednar years (1997-2004).

Wylie, C. (2014, January 28). Number of returned missionaries. Rexburg, Idaho, United States of America.

Zimmerman, B. J. (2000). Attaining self-regulation: A social-cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner, *Handbook of self-regulation* (pp. 13-39). San Diego, CA: Academic Press.

**Appendix A: IRB Approval**



## IRB Approval

October 15, 2013

**University of Idaho**

**Office of Research Assurances (ORA)**

**Institutional Review Board (IRB)**

875 Perimeter Drive, MS 3010

Moscow ID 83844-3010

Phone: 208-885-6162

Fax: 208-885-5752

irb@uidaho.edu

To: Sharon Stoll  
Cc: Cheryl Empey

From: IRB, University of Idaho Institutional Review Board

Subject: Exempt Certification for IRB project number 13-189

Determination: October 14, 2013

Certified as Exempt under category 1 & 2 at 45 CFR 46.101(b)(1 & 2)

IRB project number 13-189: General and personal teaching self-efficacy in Family & Consumer Sciences undergraduate students.

The modification to the protocol has been determined to retain the exempt certification. This study may be conducted according to the protocol described in the Application without further review by the IRB. As specific instruments are developed, each should be forwarded to the ORA, in order to allow the IRB to maintain current records. Every effort should be made to ensure that the project is conducted in a manner consistent with the three fundamental principles identified in the Belmont Report: respect for persons; beneficence; and justice.

It is important to note that certification of exemption is NOT approval by the IRB. Do not include the statement that the UI IRB has reviewed and approved the study for human subject participation. Remove all statements of IRB Approval and IRB contact information from study materials that will be disseminated to participants. Instead please indicate, "The University of Idaho Institutional Review Board has Certified this project as Exempt."

Certification of exemption is not to be construed as authorization to recruit participants or conduct research in schools or other institutions, including on Native Reserved lands or within Native Institutions, which have their own policies that require approvals before Human Subjects Research Projects can begin. This authorization must be obtained from the appropriate Tribal Government (or equivalent) and/or Institutional Administration. This may include independent review by a tribal or institutional IRB or equivalent. It is the investigator's responsibility to obtain all such necessary approvals and provide copies of these approvals to ORA, in order to allow the IRB to maintain current records.

This certification is valid only for the study protocol as it was submitted to the ORA. Studies certified as Exempt are not subject to continuing review (this Certification does not expire). If any changes are made to the study protocol, you must submit the changes to the ORA for determination that the study remains Exempt before implementing the changes. The IRB Modification Request Form is available online at: <http://www.uidaho.edu/ora/committees/irb/irbforms>

University of Idaho Institutional Review Board: IRB00000843, FWA00005639

**Appendix B: Certificate of Completion**

## Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Cheryl Empey** successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 05/26/2012

Certification Number: 926518

**Appendix C: Teacher Efficacy Scale (Short Form)**

## Teacher Efficacy Scale (Short Form)

### Teacher Efficacy Scale (Short Form)\*

A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

**INSTRUCTIONS:** Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

**KEY:** 1=Strongly Agree    2=Moderately Agree    3=Agree slightly more than disagree  
4=Disagree slightly more than agree    5=Moderately Disagree    6=Strongly Disagree

1. The amount a student can learn is primarily related to family background.	1 2 3 4 5 6
2. If students aren't disciplined at home, they aren't likely to accept any discipline.	1 2 3 4 5 6
3. When I really try, I can get through to most difficult students.	1 2 3 4 5 6
4. A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement.	1 2 3 4 5 6
5. If parents would do more for their children, I could do more.	1 2 3 4 5 6
6. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.	1 2 3 4 5 6
7. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.	1 2 3 4 5 6
8. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.	1 2 3 4 5 6
9. If I really try hard, I can get through to even the most difficult or unmotivated students.	1 2 3 4 5 6
10. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.	1 2 3 4 5 6

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\*In Hoy, W.K. & Woolfolk, A.E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal* 93, 356-372.

**Appendix D: Letter of Permission**

## Letter of Permission



**ANITA WOOLFOLK HOY, PH.D.**

**PROFESSOR  
PSYCHOLOGICAL STUDIES IN EDUCATION**

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy of both the long and short forms of the instrument as well as scoring instructions can be found at:

<http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm>

Best wishes in your work,

A handwritten signature in cursive script that reads 'Anita Woolfolk Hoy'.

Anita Woolfolk Hoy, Ph.D.  
Professor

COLLEGE OF EDUCATION  
29 WEST WOODRUFF AVENUE  
COLUMBUS, OHIO 43210-1177

[WWW.COE.OHIO-STATE.EDU/AHOY](http://WWW.COE.OHIO-STATE.EDU/AHOY)

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HOY.17@OSU.EDU





**Appendix E: General Self-efficacy Scale (GSE)**

## General self-efficacy scale (GSE)

English version by Ralf Schwarzer &amp; Matthias Jerusalem, 1995

1		I can always manage to solve difficult problems if I try hard enough.
2		If someone opposes me, I can find the means and ways to get what I want.
3		It is easy for me to stick to my aims and accomplish my goals.
4		I am confident that I could deal efficiently with unexpected events.
5		Thanks to my resourcefulness, I know how to handle unforeseen situations.
6		I can solve most problems if I invest the necessary effort.
7		I can remain calm when facing difficulties because I can rely on my coping abilities.
8		When I am confronted with a problem, I can usually find several solutions.
9		If I am in trouble, I can usually think of a solution.
10		I can usually handle whatever comes my way.

1 = Not at all true 2 = Hardly true 3 = Moderately true 4 = Exactly true

**Appendix F: Additional Six Questions**

### Additional Six Questions

The six Likert-type additional questions were:

1. To what extent do your experiential courses help you feel confident in preparing a lesson? 1=Great, Much=2, Some=3, Little=4, None=5.
2. To what extent do the experiential courses prepare you to design or apply the concepts you have learned? 1=Great, Much=2, Some=3, Little=4, None=5.
3. To what extent do you value your program? 1=Great, Much=2, Some=3, Little=4, None=5.
4. To what extent do you believe experiential learning improves your knowledge to perform in your profession? 1=Great, Much=2, Some=3, Little=4, None=5
5. To what extent do you value your hands-on learning in your courses? 1=Great, Much=2, Some=3, Little=4, None=5
6. How many times in the last month did you apply hands-on practice? (Never, Less than once a month, Once a month, 2-3 times a month, Once a week, 2-3 times a week, Daily).

**Appendix G: IRB Approval for Group Study**

## IRB Approval for Group Study

University of Idaho

Office of Research Assurances (ORA)  
Institutional Review Board (IRB)875 Perimeter Drive, MS 3010  
Moscow ID 83844-3010Phone: 208-885-6162  
Fax: 208-885-5752  
irb@uidaho.edu

June 3, 2013

To: Sharon Stoll  
Cc: Julie Buck, Cheryl Empey, Tom Anderson, Jim Hopla

From: IRB, University of Idaho Institutional Review Board

Subject: Exempt Certification for IRB project number 13-145

Determination: June 3, 2013

Certified as Exempt under category 2 at 45 CFR 46.101(b)(2)  
IRB project number 13-145: Experiential learning and self efficacy in undergraduate students

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This study may be conducted according to the protocol described in the Application without further review by the IRB. As specific instruments are developed, each should be forwarded to the ORA, in order to allow the IRB to maintain current records. Every effort should be made to ensure that the project is conducted in a manner consistent with the three fundamental principles identified in the Belmont Report: respect for persons; beneficence; and justice.

It is important to note that certification of exemption is NOT approval by the IRB. Do not include the statement that the UI IRB has reviewed and approved the study for human subject participation. Remove all statements of IRB Approval and IRB contact information from study materials that will be disseminated to participants. Instead please indicate, "The University of Idaho Institutional Review Board has Certified this project as Exempt."

Certification of exemption is not to be construed as authorization to recruit participants or conduct research in schools or other institutions, including on Native Reserved lands or within Native Institutions, which have their own policies that require approvals before Human Subjects Research Projects can begin. This authorization must be obtained from the appropriate Tribal Government (or equivalent) and/or Institutional Administration. This may include independent review by a tribal or institutional IRB or equivalent. It is the investigator's responsibility to obtain all such necessary approvals and provide copies of these approvals to ORA, in order to allow the IRB to maintain current records.

This certification is valid only for the study protocol as it was submitted to the ORA. Studies certified as Exempt are not subject to continuing review (this Certification does not expire). If any changes are made to the study protocol, you must submit the changes to the ORA for determination that the study remains Exempt before implementing the changes. The IRB Modification Request Form is available online at: <http://www.uidaho.edu/ora/committees/irb/irbforms>

**Appendix H: Letter of Permission for Group Study**

## Letter of Permission for Group Study



Freie Universität Berlin, Gesundheitspsychologie (PF 10),  
Habelschwerdter Allee 45, 14195 Berlin, Germany

Fachbereich Erziehungs-  
wissenschaft und Psychologie  
- Gesundheitspsychologie -

Professor Dr. Ralf Schwarzer  
Habelschwerdter Allee 45  
14195 Berlin, Germany

Fax +49 30 838 55634  
health@zedat.fu-berlin.de  
www.fu-berlin.de/gesund

### Permission granted

to use the General Self-Efficacy Scale for non-commercial research and development purposes. The scale may be shortened and/or modified to meet the particular requirements of the research context.

<http://userpage.fu-berlin.de/~health/selfscal.htm>

You may print an unlimited number of copies on paper for distribution to research participants. Or the scale may be used in online survey research if the user group is limited to certified users who enter the website with a password.

There is no permission to publish the scale in the Internet, or to print it in publications (except 1 sample item).

The source needs to be cited, the URL mentioned above as well as the book publication:

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp.35-37). Windsor, UK: NFER-NELSON.

Professor Dr. Ralf Schwarzer  
[www.ralfschwarzer.de](http://www.ralfschwarzer.de)