# Best Practices
# for Student Engagement

## A Faculty Guide for the Engaged Learning Initiative

The Center for Instructional Innovation
Freed-Hardeman University
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The Center for Instructional Innovation

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## Table of Contents

# Best Practices for Student Engagement
## A Faculty Guide for the Engaged Learning Initiative

## Document Conventions

The following conventions are used throughout the guide:

| Item | Format |
|------|--------|
| *Glossary Terms* | Glossary terms are *italicized* when first introduced to the reader. |
| ***Application Commands*** | Application commands are presented in *italicized*, **bold** case. |

## Acknowledgements

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## Preface

The Freed-Hardeman University (FHU) mission statement conveys a deep dedication to Christian faith and the pursuit of academic excellence. Our faculty and staff honor that mission by striving to foster a campus environment where life-long relationships are established and academic achievement is perpetuated. In fact, "The Freed-Hardeman Family" is a phrase that is often used to describe those relationships. Our Christian faith guides our efforts in regards to the personal well-being and success of our students. It has been so since the beginning of Freed-Hardeman University; it is our heritage, and it continues to serve as a light in our path.

Over the years, faculty and staff have devoted countless hours to mentoring students and creating opportunities for them to develop their talents. Each academic program has worked diligently to ensure that students who graduate in that discipline have the tools necessary to be successful in their field. However, each program working individually will never accomplish the good that all programs working together may achieve.

To that end, Dr. Charles Vires, Jr., formed the *Transforming the Undergraduate Academic Experience* working group in Fall 2012. The purpose of the working group was to directly impact and fulfill FHU's Strategic Goal #2, which states "Freed-Hardeman University will be a dynamic, growing community of Christian scholars who are actively engaged in thinking, doing, and learning." The *Transformative Learning*, *Academic Engagement*, and *Personal Learning Environment* sub-groups were formed from the larger working group to research specific criteria of successful, dynamic undergraduate learning communities. The contributions of these sub-groups were used to create a framework for implementing a new engaged learning initiative at Freed-Hardeman University. This initiative provides a framework to organize engaged learning courses, scholarly activities, and student-driven projects into a comprehensive program that positively impacts the undergraduate experience.

The Engaged Learning Working Group

*The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done; men and women who are creative, inventive and discoverers, who can be critical and verify, and not accept everything they are offered.*

*— Jean Piaget*

# Best Practices for Student Engagement
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## Introduction

The purpose of this guide is to support Freed-Hardeman University faculty as they strive to integrate principles of student engagement, as defined by the Engaged Learning Initiative (ELI or Initiative), into their pedagogy. This Initiative was developed by a faculty working group that was charged with the task of meeting the objectives outlined in the University's strategic plan to promote student engagement. The purpose of the Initiative is to expose students to powerful ideas in a challenging, collaborative environment that will help them embrace their God-given potential and responsibility, and support them as they engage their world in vocation and service (L. Davis, personal communication, September 3, 2014).

The Initiative devised by the working group embraces principles of student engagement found in various learning theories and modalities. Applied principles from these theories and modalities will challenge students, both inside and outside the classroom, to critically reflect upon life experiences and achieve learning through the interpretation of the meaning of those experiences (Cranton, 2006; Mezirow, 2000). Faculty who embrace these principles will expose their students to new concepts and ideas, engage students with new experiences, and ask students to evaluate their newfound perspectives through critical reflection and discourse.

## Intended Audience

This guide was developed for faculty members who participate in the Engaged Learning Initiative. It may also serve as a resource for any faculty member who seeks to integrate the best practices promoted by the Initiative into his or her pedagogy. The guide does not assume that the reader has any prior knowledge regarding this topic.

## Scope of Document

This guide will articulate the best practices found in the Engaged Learning Initiative as defined by FHU. It will attempt to answer the question, "What is engaged learning?" through a review of literature that examines learning theories and modalities that support the Initiative. It will also discuss how various teaching strategies may be used to construct learning environments that are conducive to student engagement. Finally, the guide will examine the requirements of the Initiative and review the resources made available to support faculty in this endeavor.

## What is Engaged Learning?

*Engaged Learning* is a term that is widely used in academia to describe and support numerous educational strategies and initiatives. For many, increasing student engagement is seen as a "silver bullet" that can improve learning outcomes, enhance recruitment, and improve retention. A Faculty Focus article states that, "Institutions are beginning to create jobs that recognize by name the importance of student engagement in and out of the classroom. These

positions are based on the idea that students who contribute actively to their learning environments—through experiences such as learning communities, service-learning, first-year seminars, and undergraduate research—are more likely to succeed in college" (Kattner, 2010, p. 6). This sentiment is reflected in academic literature, which is often inundated with articles and references to engaged learning and the positive impact it can have on education in general. It is no wonder that colleges and universities place such a high level of importance on this topic. In an article published by the American Association of Colleges and Universities, Stephen Bowen states that, "Engagement is increasingly cited as a distinguishing characteristic of the best learning in American higher education today. Vision statements, strategic plans, learning outcomes, and agendas of national reform movements strive to create engaged learning and engaged learners. Despite this emerging emphasis, an explicit consensus about what we actually mean by engagement or why it is important is lacking." (2005, p. 4).

Consider the following explanations of engaged learning in light of Bowen's observation. Loyola Marymount University defines an engaged learning course as one that, "combines experiential opportunities with academic preparation and involves active, hands-on learning, critical reflection, and the integration of experience with knowledge" (Engaged Learning Defined, 2014). The Center for Engaged Academic Learning at the University of Michigan defines engagement as "a pedagogical strategy that emphasizes hands-on experiences in local, national or international communities and involves substantive reflection of that work" (What is Engaged Learning, 2014). These institutions focus on hands-on learning, experience, and critical reflection to define engaged learning.

In an article published in the *Journal of Engineering Education*, Michael Prince associates student engagement with active learning in the classroom. He states that, "Active learning is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing. While this definition could include traditional activities such as homework, in practice, active learning refers to activities that are introduced into the classroom. The core elements of active learning are student activity and engagement in the learning process" (2004, p. 1).

Following a different vein, Ben Johnson, in his Edutopia blog states, "The ultimate engagement is to put the learner in charge of learning. Create a rich learning environment and a motivation to learn, and the students do all the hard work of learning, while the teacher merely facilitates" (2012). Hence, Johnson takes a traditional constructivist view on the definition of engagement.

As gleaned from these examples, the definition of engaged learning is often differentiated by the needs of the practitioner and the emphasis that is placed on various aspects of the learning strategy and environment. With this in mind, FHU adopted a definition of engaged learning that takes into consideration the needs of the University, as well as academic thought found in

literature.  Before examining this definition, we suggest that a review of learning theories and modalities be performed.

## A Review of Learning Theories

Numerous theories of learning have evolved in the field of education and psychology over the last century.  Each theory attempts to define the learning process and provide the practitioner with a framework to facilitate learning.  Learning modalities such as Transformative Learning, the 5E Instructional Model, and Active Learning find their theoretical basis in Behaviorism, Cognitivism, Constructivism, and in some cases, Humanism (Jobrack, 2014).  These theories and models often build upon principles found in their predecessors (Mezirow, 1991; Cranton, 2006; Bybee et al., 2006).  In this section, we will briefly examine the theories behind the above-mentioned models of learning.

### Behaviorism

*Behaviorism*, as the name implies, is the study of observable human and animal behavior (L. Nagowah & S. Nagowah, 2009).  The theory established itself during the twentieth century and traces its roots to individuals such as J.B. Watson, Ivan Pavlov, E.F. Thorndike, and B.F. Skinner.  Skinner had a profound influence on the theory and laid the groundwork for the study of behavioral analysis.  His research focused on observable behaviors and how those behaviors might be manipulated.  He did not believe that theories such as Cognitivism, which focused on the mental process, could provide creditable knowledge to the field of psychology since those theories were not based on observable factors.  Skinner and those who embraced this line of thought became known as radical behaviorists.  During the 1970s, the theory moved beyond its founders and matured as a discipline (Watrin & Darwich, 2012).

The impact of Behaviorism is significant in the field of education.  From an educator's perspective, Behaviorism defines learning as connections between stimuli and responses, and the motivation to learn is a function of rewards and punishments (Bransford, 1999).  Learning is considered to be a passive activity and knowledge is given and absolute (L. Nagowah & S. Nagowah, 2009).  The learning environment is teacher-centric where prescribed processes yield predictable outcomes.  Education becomes the process of manipulating student behavior through positive and negative reinforcement (Watrin & Darwich, 2012).

Behaviorism provided the conceptual basis for developing learning objectives and establishing standards.  These objectives and standards describe what "behaviors" a student should exhibit once he or she completes a lesson or meets a standard.  Various models of instruction have developed as a result of Behaviorism.  This includes curriculum-based measurement and direct instruction that requires adherence to a well-defined (sometimes scripted) delivery method and promotes predictable outcomes for learning (Jobrack, 2014).  Various learning models have been influenced by Behaviorism, including several that have been deemed foundational to FHU's Engaged Learning Initiative.  These will be discussed later in the guide.

As seen above, Behaviorism has had a significant impact on the fields of psychology and education.  However, Behaviorism has its limitations.  According to Beverlee Jobrack, the theory cannot explain how students understand, reason, and think.  It does not attempt to explain any process that is not observable.  Therefore, additional theories are needed to explain this phenomenon.

### Cognitivism

The theory of *Cognitivism* looks beyond behavior and examines how the mind processes information.  Our brains are viewed as information processing systems that are capable of recalling, creating, and organizing knowledge that will guide our future behavior (Jobrack, 2014; Yilmaz, 2011).  Various cognitive processes are instigated by our brains to perform specific tasks.  For instance, learning to speak requires a different process than that used to spell.  Psychologists believe it is important to differentiate between processes in order to understand how learning is impacted and enhanced (Yilmaz, 2011).  In addition, cognitive theory asserts that individuals must actively participate in the learning process in order to facilitate learning as compared to Behaviorism where learning is considered to be a passive act (Jobrack, 2014).

The groundwork for Cognitivism was first laid in the early part of the 20th century.  Behaviorism was the dominant theory of learning during that time; however, it could not explain the mental processes that occur when learning takes place.  Hence, the theory of Cognitivism was devised to answer questions that Behaviorism could not (Jobrack, 2014; Yilmaz, 2011).  Various individuals influenced the development of cognitive theory, including Edward Tolman, Jean Piaget, Lev Vygotsky, and Jerome Bruner.  Most notable among this group was Tolman and his experiments with rats and mazes.  Tolman's experiments demonstrated that behavior could have purpose and direction, independent of reinforcing stimuli, and laid the groundwork for the field of cognitive psychology (Yilmaz, 2011).

The "Cognitive Revolution" of the 1950s spawned numerous advances in our understanding of memory, attention, concept formation, and information processing.  The process of learning was recognized as an active process, and the learner was recognized as an active participate.  This is reflected in the work of Piaget and Vygotsky.  Piaget introduced the concept of *Equilibration* where new experiences contradict an individual's understanding of the world and forces them to seek equilibrium.  This is achieved when an individual assimilates new information with existing knowledge and makes accommodations in his or her cognitive schemas to address those experiences in the future.  Vygotsky focused on the interaction of the individual and society, especially the influence that language and social interaction have on learning.  He introduced the General Law of Genetic Development, Auxiliary Stimuli, and the *Zone of Proximal Development (ZPD)*.  Each of these principles examines mental processes and how they are influenced by social interaction.  ZPD received considerable attention by educators and defines what an individual can achieve on his or her own versus what he or she

can achieve with assistance from another individual (a teacher or more capable peer). Vygotsky's *Social Cognitive Theory* asserts that instruction should provide a learner with meaningful dilemmas that are socially relevant to his or her level of development, occur within the learner's ZPD, and be coupled with advanced partners (Yilmaz, 2011). The contributions of Piaget and Vygotsky helped shape how Cognitivism would influence education in the 20th century. However, it should be noted that their research focused on childhood development (*Pedagogy*) and may or may not apply to adult learning (*Andragogy*), which is particularly relevant for higher education.

The impact of Cognitivism on the classroom has been significant. The theory asserts that the classroom environment should encourage active involvement by students and function as a scaffold that enables them to make connections between previous knowledge and new learning. Students should be encouraged to engage in the planning and monitoring of their individual progress. They should become active participants in analyzing and organizing learning tasks. They should also learn to organize and structure information using various cognitive strategies and tools. In general, the classroom should promote a student-centric learning environment where students are active participants in the learning process (Jobrack, 2014; Yilmaz, 2011).

Two methods of teaching that evolved from cognitive theory are *Inquiry Learning* and *Discovery Learning*. These methodologies are primarily based upon Piaget's theory of cognitive development and resemble the scientific inquiry method. In both methodologies, students are presented with a perplexing problem to create a state of disequilibrium. After reaching this state, they develop a hypothesis, gather information, analyze data, and test their hypothesis as a possible solution. In Discovery Learning, the manner in which students analyze and process data is more important than the outcome. It is believed that students who take ownership of this process, will not only remember factual information, but will also develop higher-order thinking skills (Yilmaz, 2011). According to Jobrack, emphasis is placed on learning to think as opposed to compiling content knowledge (2014). Both methods are process-driven and serve as examples of the importance that cognitive theory places on the mental process of learning.

The focus of Cognitivism has had a significant influence on the field of education. Teachers are encouraged to recognize the cognitive structures and knowledge bases of their students and help them integrate new knowledge. Students are viewed as active participants in the learning process, and the process is considered to be just as important as the content being delivered. By actively participating in the learning process, students retain information and develop higher-order thinking skills (Yilmaz, 2011). Yet, in spite of its many positives, various educators and researchers believe that Cognitivism cannot explain how students build understanding and knowledge. To that end, additional theories of learning have been devised to explain that process (Jobrack, 2014; Yilmaz, 2011).

### Constructivism

The theory of *Constructivism* finds its roots in Cognitivism and attempts to explain how individuals gain understanding and create knowledge. Constructivists believe that true learning occurs when meaning is derived from experiences (Ertmer & Newby, 2013; Jobrack, 2014; Yoders, 2014). Our experiences impact the cognitive schemas that govern our understanding of the world. Meaning is derived as we gain understanding and create knowledge in support of our understanding. Hence, knowledge is not "mapped" upon our minds from external sources, but internally constructed as a result of our experiences (Ertmer & Newby, 2013; Yoders, 2014). Constructivists view the mind as a filter that enables the individual to create a unique reality of the world (Ertmer & Newby, 2013). Radical constructivists believe that knowledge creation is wholly dependent upon an individual's interpretation of experiences, while social constructivists believe that knowledge is constructed through social interaction and shared experiences (Singh & Rajput, 2013). In either case, knowledge is open to change as new experiences are encountered (Ertmer & Newby, 2013). For the constructivist, learning becomes a function of our experiences and interaction with others.

The foundation for constructivist theory may be traced to various twentieth-century thinkers, including Jean Piaget and Lev Vygotsky (Singh & Rajput, 2013). As previously discussed, Constructivism finds its roots in Cognitivism, which focuses on the mental process of learning. Many view Constructivism as a branch of Cognitivism while others believe that Constructivism is simply an extension of cognitive thought (Ertmer & Newby, 2013). Regardless, the works of Piaget and Vygotsky have had a profound impact on both Constructivism and Cognitivism (Ertmer & Newby, 2013; Jobrack, 2014; Yoders, 2014). Piaget's concept of Equilibration and Vygotsky's Zone of Proximal Development provide a framework that enables us to understand how experiences impact our understanding of the world and how knowledge is created (Yoders, 2014). Other thinkers, such as John Dewey, emphasized the relationship of prior knowledge in the learning process and laid the groundwork for *Experiential Learning* (Singh & Rajput, 2013). Allan Collins, Jerome Bruner, and Joseph Novak introduced concepts such as *Cognitive Apprenticeships*, *Instructional Scaffolding*, and *Concept Mapping* that supported the advancement of constructivist thought (Singh & Rajput, 2013; Yoders, 2014). These individuals and their contributions helped shape modern-day Constructivism.

Constructivism's impact on teaching and learning continues to evolve as academia embraces and debates various aspects of the theory. Peggy Ertmer and Timothy Newby describe the relationship between learning theories as a continuum, which begins with Behaviorism, advances through Cognitivism, and ends with Constructivism. As one advances along the continuum, emphasis changes from teaching to learning (2013). At its core, Constructivism promotes a learner-centric environment where the role of teacher is transformed into facilitator. Samuel Yoders defines a constructivist learning-environment as one that is composed of active learners where learning takes place within a context that is relevant for the topic being addressed. New knowledge is built upon existing knowledge and applied with

appropriate feedback.  Finally, learners engage in self-reflection to validate their newfound perspectives (2014).  In this environment, learners gain understanding and construct knowledge by engaging in new experiences, collaborating with others, and developing self-chosen positions while recognizing that others may have differing opinions (Ertmer & Newby, 2013).

The concepts of Instructional Scaffolding and Cognitive Apprenticeships have had a significant influence on education (Yoders, 2014).  These concepts are based on Vygotsky's Zone of Proximal Development where individuals achieve learning through formalized interaction with subject matter experts.  These experts help learners bridge the gap between their individual abilities and what they can accomplish with assistance from others.  Instructional Scaffolding is one tool that accomplishes the above.  Initially, scaffolding provides a high level of expert support to the learner.  The level of support progressively decreases as the learner accomplishes increasingly difficult tasks.  Hence, the expert helps the learner to become autonomous in terms of his or her ability to understand and apply the subject matter (Yoders, 2014).  The concept of Cognitive Apprenticeships is a key component of scaffolding.  This concept addresses the assimilation of expert knowledge by a novice over a given period of time.  The apprenticeship may take many forms, including coaching and mentoring.  Regardless of the form, the expert models behavior in a relevant context for the novice.  In turn, the novice gains meaning through shared experiences with the expert and knowledge is created as a result.  The novice then uses the knowledge he or she has gained to imitate the expert with in the learning environment, receive feedback, and refine his or her skills and understanding (Yoders, 2014).  The above demonstrates how Instructional Scaffolding and Cognitive Apprenticeships can help learners master complex tasks that may otherwise be outside of their ability to master.

The level of attention that Constructivism receives in academic literature promises to keep this theory in the spotlight for the foreseeable future.  A survey of literature will reveal various individuals who argue the merits of the theory and the application of its tenets.  Regardless, most instructional designers agree that constructivist principles can have a positive impact on the teaching and learning process (Ertmer & Newby, 2013).  At its core, Constructivism focuses on the learner and redefines the role of the teacher as that of facilitator.  For the learner, understanding and knowledge is created through his or her experiences.  To facilitate learning, the teacher must evaluate the learner's existing knowledge base, expose the learner to new experiences, and guide the learner as new knowledge is built upon existing knowledge.  This is accomplished through the application of various pedagogical tools such as Instructional Scaffolding and Cognitive Apprenticeships.  Constructivism continues to evolve and impact various models of learning.

## Humanism
The last theory that we will discuss is *Humanism*.  We believe a review of Humanism is warranted due to its many references in literature on the topic of teaching and learning.  The philosophy of Humanism states that human beings have the ability to give shape and meaning

to their lives, and humanistic thought can serve as a catalyst for change.  Many people believe that Humanism is tightly integrated with atheism and deserves close scrutiny by Christian educators.  We agree with that assertion.  However, Humanism is composed of various branches that may not directly support atheistic thought.  For example, *Humanistic Psychology* focuses on the concept of self-actualization, which is the process of realizing and expressing an individual's abilities and creativity.  This branch of psychology acknowledges the spiritual aspirations of the individual (Lines, 2002).

Various writers and philosophers have embraced Humanistic Psychology and its explanation of human behavior and growth.  According to Andrew Kitchenham, the work of Paulo Freire, a Brazilian educator and philosopher, had a significant impact on Mezirow's theories of Transformative Learning.  Freire believed that the growth of an individual's consciousness led to critical thought and critical action to effect change in one's life.  This line of thought is reflected in Mezirow's *Ten Phases of Transformative Learning* where an individual is subjected to a disorienting dilemma, experiences feelings of helplessness, and then rises up to embrace the challenge and effect positive change (Mezirow, 1991; Cranton, 2006; Kitchenham, 2008).

As Christian scholars, we would argue that a belief in God does not preclude an individual from accepting personal responsibility for one's actions, nor does it prevent an individual from effecting positive change in his or her life.  To the contrary, we believe that each is fundamental to New Testament teachings.  As Paul stated in Philippians, we find both contentment and strength through faith and obedience to God.

> *I know how to be brought low, and I know how to abound.  In any and every circumstance, I have learned the secret of facing plenty and hunger, abundance and need.  I can do all things through him who strengthens me.*
>
> *Philippians 4:12-13 (ESV)*

As Christians, we do not need to look beyond our religious beliefs to find motivation to live productive and meaningful lives.  The scriptures teach us to use our God-given talents in a worthy manner and to seek His strength and guidance as we journey through life.  Therein lies our motivation to become a better person and to create a better world in which to live.

Consider Mezirow's framework for learning in relation to newly converted Christians.  Every individual who becomes a Christian must first face the disorienting dilemma that God does exist and that he or she is separated from God by sin.  This is followed by a period of study and engagement where he or she will develop new perspectives regarding his or her relationship with God and His will for us.  After validating those newfound perspectives through critical reflection and discourse, he or she will act upon those perspectives through repentance, confession, and baptism.  The merits of the model are not contingent upon the acceptance of a

learning modality that is contrary to Christian beliefs.  They are simply based on the ability of the model to explain the transformative nature of the learning process.

## Constructivist-Based Learning Modalities

The next step in understanding the University's definition of engaged learning is to review learning modalities that have evolved from the theories discussed in the previous section.  For this purpose, we will examine the following constructivist-based learning models: Transformative Learning, 5E Instructional Model, and Active Learning.  It should be noted that "model" and "theory" is often used interchangeably in reference to certain learning paradigms.  For example, some authors refer to Transformative Learning as a model, while others refer to it as a theory.  For the purpose of our discussion, we will consider a model as one that provides the practitioner with a set of teaching strategies to be implemented in the learning environment.

### Transformative Learning Model

The first learning modality that we will examine is *Transformative Learning*.  Dr. Jack Mezirow is considered by many as the founding father of Transformative Learning and focused his research on Andragogy (adult learning).  In 1978, the U.S. Department of Education sponsored a national study to explain the number of adult women returning to higher education.  Mezirow tapped this research to identify a ten-step process that "transformed" the perspectives of adult learners.  He called this process, *Perspective Transformation*, which is comprised of the following steps:

1. encountering a disorienting dilemma;
2. engaging in self-examination;
3. performing a critical assessment of assumptions;
4. recognizing the connection between one's discontent and the process of transformation;
5. exploring options for new roles, relationships, and action;
6. planning a course of action;
7. acquiring knowledge and skills for implementing one's plan;
8. trying of new roles;
9. building competence and self-confidence in new roles and relationships; and
10. reintegrating into one's life on the basis of conditions dictated by one's new perspective (Mezirow, 1991; Cranton, 2006).

In this process, an individual encounters a disorienting dilemma that challenges his or her perspective or understanding of the world.  This dilemma is similar in nature to that described by cognitive theorists where our experiences challenge and reshape the cognitive schemas that we use to explain the world and guide our behavior.  Once faced with this dilemma, an individual examines his or her beliefs and assumptions.  He or she will become motivated to

explore new perspectives that can restore what Piaget defined as Equilibrium.  This may require the individual to develop a course of action to seek new knowledge and skills and to develop competence and self-confidence through the assumption of new roles and relationships.  In the end, he or she will construct a newfound perspective that better explains the world.

In the years that followed, Mezirow continued to build upon his research and develop his adult learning theory.  He introduced the concept of a *Frame of Reference*, which is composed of *Habits of Mind* (or meaning perspectives) and *Points of View* (Mezirow, 1991; Cranton, 2006).  Habits of Mind are predispositions used to interpret experiences and Points of View are used to express those predispositions in the form of opinions and suggested actions.  For example, if an individual has a "bad experience" while flying on a commercial airline, he or she may express the point of view that taking a train is a better alternative.  According to Mezirow, Transformative Learning can change our Frames of Reference.  Learning occurs when we encounter a new perspective and our existing Habits of Mind are called into question (1991).  This "disorienting dilemma" may be a single life-changing event or a culmination of events that occur over time.  Regardless, our Frame of Reference changes as we develop new Habits of Mind and express these through revised Points of View (Cranton, 2006).

One key component of Transformative Learning is *Critical Reflection*.  Critical Reflection is viewed as the process of examining, interpreting, and generalizing our experiences to form new Frames of Reference (Cranton, 2006).  It is the tool that allows us to dissect our personal perspectives and develop new ones.  By reflecting on content, process, and premise, an individual is empowered, not only to ask, "What is happening?" but also to ask, "Why is this happening?"  It is the latter that enables us to view the world in a different light.  Hence, critical reflection (and critical self-reflection) is central to the Transformative Learning experience (Mezirow, 1991).

In this section, we have summarized the basic tenets of Transformative Learning.  Since the 1970s, the theory has moved beyond Mezirow's thinking and evolved into a complex learning theory (Cranton, 2006).  It has been critiqued and expanded upon by various individuals and promises to have a significant impact on education in the foreseeable future.  With that said, its basic tenets have not changed.  Transformative Learning takes place when an individual is faced with experiences that challenge his or her perception of the world.  This motivates him or her to obtain new knowledge, experiment with new roles, and formulate new perspectives to explain the world in which he or she lives (Mezirow, 1991; Cranton, 2006).

## 5E Instructional Model
The next learning modality that we will examine is the *5E Instructional Model*.  This model was developed by Rodger W. Bybee in the 1980s and promotes a constructivist approach for teaching and learning that also draws from Behaviorism and Cognitivism (Jobrack, 2014).  The model is based on the thinking of individuals such as Johann Herbart, John Dewey, and Jean

Piaget.  It uses scaffolding to help students connect their existing knowledge with new knowledge, provides direct instruction of ideas that students cannot discover on their own, and gives students the opportunity to demonstrate their newfound understanding (Jobrack, 2014).  Although the primary focus of the 5E Instructional Model has been in the area of K-12 science education, various writers agree that its tenets can have a positive impact on the teaching and learning process in general (Bybee et al., 2006; Jobrack, 2014).

A review of instructional models that have had a direct impact on the development of the 5E Instructional Model will lay the foundation for a better understanding of the principles behind the model.  To build this foundation, we will briefly examine the works of Johann Herbart, John Dewey, and the Science Curriculum Improvement Study (SCIS) model that is based on the works of J. Myron Atkin and Robert Karplus.  The following is a brief review of these models:

In Johann Herbart's model, the teacher brings new experiences to the student's awareness and then makes connections to prior experiences.  Next, the teacher explains ideas and develops concepts for the student.  Finally, the teacher provides the student with the opportunity to demonstrate his or her understanding by applying concepts in new contexts or situations (Bybee et al., 2006).

In John Dewey's model, the teacher presents a disorienting experience to the student and then helps him or her identify the problem associated with the experience.  The student is then given an opportunity to form a hypothesis and establish relationships between the problem and past experiences.  Next, the student will perform an experiment that will enable him or her to accept or reject the hypothesis.  Finally, the student will reflect upon and communicate his or her conclusions to others (Bybee et al., 2006).

In the SCIS model, learning is framed in a three-phase process: Exploration, Invention, and Discovery.  In this model, the student will engage in an initial experience with some phenomena.  He or she will be introduced to new terms and associated concepts that are the object of study.  Finally, he or she will apply concepts and use terms in related, but new situations.  The three phases of this model were eventually integrated into the design of the 5E Instructional Model (Bybee et al., 2006).

A comparison of the above models will reveal commonalities in their approach to teaching and learning.  In each model, students are exposed to new experiences or phenomena that is perplexing or cannot be easily explained.  The teacher then introduces new concepts and ideas and gives students an opportunity to experiment and/or apply what they have learned in various settings.  Finally, students reflect upon, demonstrate, and communicate their newfound perspectives.  This commonality is found in the 5E Instructional Model as well.

The 5E Instructional Model is composed of the following phases: Engagement, Exploration, Explanation, Elaboration, and Evaluation (Bybee et al., 2006).  In the remainder of this section, we will discuss each phase and its purpose and function within the model.

The first phase of the 5E Instructional Model is the Engagement Phase.  During this phase, students are engaged with the learning task.  The teacher challenges the students and sets the rules and procedures for the learning topic and task.  An attempt is made to help students connect with prior knowledge.  This will reveal accurate and applicable knowledge that may be applied to the task, as well as preconceptions, misconceptions, and naïve conceptions that need to be addressed.  The Engagement Phase is deemed successful if students are puzzled by and motivated to perform the learning activity (Bybee et al., 2006).

Students are then given time to explore ideas during the Exploration Phase.  This phase provides students the opportunity to initiate the process of Equilibration.  That is, to examine the disorienting dilemma that was presented to them during the Engagement Phase and pursue activities that provide experiences upon which they can formulate new concepts, processes, and skills to explain the problem.  The teacher assumes the role of facilitator or coach, initiates activities, gives students time to investigate the phenomena, and guides students as they begin developing explanations (Bybee et al., 2006).

During the Explanation Phase, the teacher and students collaborate and use common terms to explain the problem in which they were engaged in a clear and concise manner.  Their explanations should not only address the problem, but also incorporate their experiences from the Exploration Phase.  The Explanation Phase will give the teacher the opportunity to provide students information they normally would not discover on their own.  This information should be incorporated into the student's explanations as well (Bybee et al., 2006).

The next phase in the 5E Instructional Model is the Elaboration Phase.  During this phase, students are given the opportunity to extend their understanding of the original problem.  New problems or situations are introduced that are similar in nature to that of the original problem.  Students use previously developed explanations to solve new problems and complete new tasks.  This is performed in an open environment where students can discuss and defend their explanations.  The goal is the generalization of concepts, processes, and skills to solve similar problems and complete similar tasks (Bybee et al., 2006).

The final phase in the 5E Instructional Model is the Evaluation Phase.  This phase, as its name implies, gives students the opportunity to use the skills they have acquired throughout the learning cycle and evaluate their understanding.  Teachers may use formative assessments throughout the sequence to guide their teaching strategy and make course corrections.  However, at the end of the Elaboration Phase, teachers should assess student-learning outcomes with a summative assessment (Bybee et al., 2006).

The 5E Instructional Model has proven itself to be a sound learning-model that has made a significant impact in the field of science. In general terms, the model is designed to facilitate the process of conceptual change. This is reflected, not only in the 5E Instructional Model, but also in the models and theories on which it is based. To that end, we see the commonality it shares with other constructivist-based modalities.

### Active Learning Model

The last modality that we will examine is *Active Learning*. Some would argue that Active Learning is not a learning modality, but simply a set of strategies to engage students. Regardless of the above, research indicates that Active Learning can have a positive impact on student engagement and warrants its inclusion in our discussion (Prince, 2004). It is important to note that Active Learning strategies primarily target the traditional classroom. Although classroom engagement is just one component of FHU's Engaged Learning Initiative, its impact on the undergraduate experience is significant and should be addressed in light of the above.

Simply stated, Active Learning is any process that involves students doing and thinking in a classroom setting (Active Learning, 2015). The Stanford Teaching Commons, a website whose purpose is to support Stanford University faculty, states that, "Active Learning means students engaged with the material, participating in the class, and collaborating with each other" (Promoting Active Learning, 2015). Faculty are reminded that, "they shouldn't expect students simply to listen and memorize; instead, have them help demonstrate a process, analyze an argument, or apply a concept to a real-world situation" (Promoting Active Learning, 2015).

According to the Center for Teaching Excellence at Cornell University, "Active Learning reinforces important material, concepts, and skills and provides more frequent and immediate feedback to students. It addresses different student learning styles and provides students with an opportunity to think about, talk about, and process course material. It creates personal connections to the material for students, which increases their motivation to learn. It allows students to practice important skills, such as collaboration, through pair and group work, and it builds self-esteem through conversations with other students. Finally, it creates a sense of community in the classroom through increased student-to-student and instructor-to-student interaction" (Active Learning, 2015). According to Stanford University, "Active Learning promotes independent, critical, and creative thinking. It encourages collaboration and increases student investment, motivation, and performance" (Promoting Active Learning, 2015).

The list of pedagogical tools that may be used to facilitate Active Learning may be grouped into any number of categories, including the following:

- Knowledge, Skills, Recall, and Understanding
- Analysis and Critical Thinking
- Synthesis and Creative Thinking
- Problem Solving
- Application and Performance
- Attitudes and Values
- Self-Awareness as Leaners
- Learning and Study Skills

Tools such as One-Minute Papers, Clarification Pauses, Quotations, Paired Discussions, and Concept Mapping are but a few of the pedagogical tools that can facilitate student engagement in the classroom. To implement these tools, research performed by McGill University indicates that the arrangement of the classroom must be fluid, which is facilitated by furniture and technology that is mobile, easy to use, and transparent in relation to the learning process. In the Active Learning classroom, desired learning outcomes govern teaching strategies, and teaching strategies determine the physical layout of the room and the technology needed to support those strategies (Active Learning Classrooms, 2015).

The purpose of this section is not to expound upon Active Learning, but to review learning modalities in order to better understand the concept of student engagement. When compared to Transformative Learning and the 5E Instructional Model, Active Learning may seem disjointed and lacking a functional framework in which to operate. In reality, Active Learning shares many of the characteristics of the above learning modalities. In the traditional classroom, students come to class with prior knowledge and perspectives that are a function of past experiences. Active Learning requires the teacher to challenge those perspectives and encourage his or her students to assume responsibility for learning by taking the lead in the learning process at the appropriate time. Well-planned activities and exercises promoted by Active Learning will engage students with experiences that challenge their existing perspectives and help them develop new ones. As with Transformative Learning and the 5E Instructional Model, the teacher assumes the role of facilitator or coach as he or she guides students toward achieving the learning outcomes of the course. In essence, Active Learning is a toolset for the classroom that promotes inquiry, discovery, and reflection in a manner similar to the modalities already discussed.

## FHU's Engagement Methodology

After reviewing various theories and models of learning, we again ask the question, "What is engaged learning?" We will answer this question by referring to the definition proposed by

Elizabeth F. Barkley, in her book titled, *Student Engagement Techniques: A Handbook for College Faculty*. Barkley states, "Student engagement is a process and product that is experienced on a continuum and results from the synergistic interaction between motivation and active learning" (2010, p. 8).

Barkley believes that instructors should strive to create learning environments that motivate students to actively participate in the learning process in order to facilitate engagement. While no single theory or model exists to create such a utopian learning environment, Barkley believes that the application of proven strategies and techniques can increase engagement and improve learning outcomes (2010). The University has adopted Barkley's definition to serve as a basis for the development of its engaged learning methodology.

With this definition in mind, the ELI working group crafted an engagement methodology that was based on proven learning theories and modalities. In addition, the working group pursued a methodology that was holistic in its approach to the student experience. That is, the methodology was equally applicable inside and outside the classroom. Finally, the working group embraced a methodology that was simple in design, maintained academic freedom, and took into consideration the numerous engagement activities that FHU faculty are already contributing to the student experience.

FHU's engagement methodology is not based on a single learning theory or modality, but integrates common attributes from several of the theories and modalities examined in this guide. Peggy Ertmer and Timothy Newby addressed this approach in a journal article titled, "Behaviorism, Cognitivism, Constructivism: Comparing Critical Features From an Instructional Design Perspective." In this article, Ertmer and Newby state that,

> *We have consciously chosen not to advocate one theory over the others, but to stress instead the usefulness of being well-versed in each. This is not to suggest that one should work without a theory, but rather that one must be able to intelligently choose, on the basis of information gathered about the learner's present level of competence and the type of learning task, the appropriate methods for achieving optimal instructional outcomes in that situation. (2013, p. 61)*

In a similar vein, the working group sought to find common and effective strategies and techniques among various theories and modalities to achieve the goals of the Initiative. To that end, the FHU engaged learning methodology was formulated. In this section, we will examine the engagement methodology adopted by the ELI working group.

**The Three E's of Student Engagement**

The methodology adopted by the working group has been titled, "The Three E's of Student Engagement" and is comprised of the following steps:

Step 1: Students should be **Exposed** to concepts and ideas that challenge their existing perspectives, which are based upon past experiences.

Step 2: Students should be **Engaged** with new experiences that will enable them to formulate new perspectives.

Step 3: Students should **Evaluate** new and existing perspectives through critical reflection and discourse to assess their validity and develop new frames of reference.
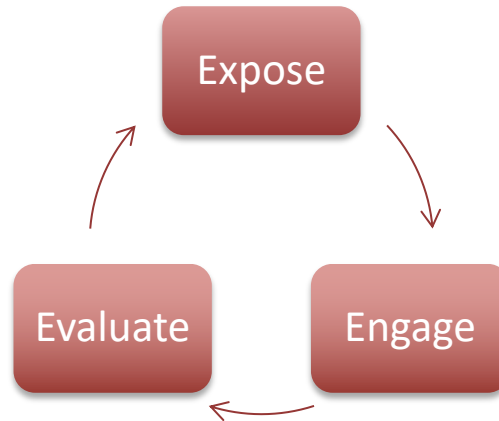


**Figure 1**

The engagement cycle presented in Figure 1 closely resembles Piaget's concept of Equilibration and is repeated each time an individual encounters a disorienting dilemma. In the following sections, we will examine each step in the methodology, including its theoretical basis and its impact on student learning.

**Exposing Students to New Concepts and Ideas**

The theories of Cognitivism and Constructivism teach that individuals develop cognitive schemas to explain the world in which they live and govern their everyday actions. These schemas are formed from past experiences and may be challenged as we engage in new experiences. Mezirow equated these schemas to perspectives in the Transformative Learning model. In addition, he equated new concepts and ideas to disorienting dilemmas that force us to seek new knowledge and skills and assume new roles and relationships to develop new perspectives that better explain the world. In the 5E Instructional Model, students are presented with tasks that puzzle and motivate them to perform a prescribed learning activity. This phase parallels the encounter with a disorienting dilemma discussed by Mezirow. Each of

these theories and models agree that students must be exposed to new concepts and ideas that challenge their existing perceptions of the world and motivate them to seek change in order for learning to take place.  This task is addressed in the first step of FHU's engagement methodology.

### Engaging Students with New Experiences

Students must be engaged with new experiences in order to develop new perspectives.  This task is accomplished in the second step of FHU's engagement methodology.  By engaged, we mean that students must be motivated to actively pursue and be involved in the exploration of new experiences, regardless of their form or where those experiences occur (Barkley, 2010).  Both Cognitivism and Constructivism teach that our experiences enable us to develop the cognitive schemas that we use to understand the world.  In a similar fashion, Mezirow believed that our experiences form the basis for perspectives, and the transformation of our perspectives is solely dependent upon the experiences in which we engage.  This same emphasis is seen in the Exploration Phase of the 5E Instructional Model where students are given the opportunity to engage in new experiences, which enables them to formulate new concepts, processes, and skills.  As seen above, this concept is consistent across several theories and models of learning.  Hence, students must be engaged with new experiences in order to develop understanding and maintain what Piaget called, Equilibrium.

### Evaluating Perspectives Through Critical Reflection

Various thinkers, including Dewey and Mezirow, have asserted that true learning cannot take place until students have an opportunity to reflect upon their newfound perspectives.  In the final step of FHU's engagement methodology, students will reflect upon content, process, and premise.  This type of reflection helps to develop what Mezirow called Frames of Reference.  Our perspectives define our Frames of Reference and closely resemble the schemas discussed in cognitive theory.  This concept is mirrored in the Elaboration and Evaluation phases of the 5E Instructional Model where students generalize, defend, and apply their newfound perspectives.  As students engage in reflection, schemas are revised, perspectives are changed, and equilibrium is restored.  Like the concepts previously discussed, the need for reflection is consistent across various learning theories and modalities and is included as the final step of FHU's engagement methodology.

### Creating a Framework for Learning

FHU's engagement methodology, as outlined above, must be well-organized and delivered within a proven framework in order to maximize its impact on student learning.  In 2005, the Association of American Colleges and Universities (AACU) launched a decade-long initiative titled, *Liberal Education and America's Promise* (LEAP).  The purpose of the LEAP initiative was to align goals for college learning with the needs of the new global century.  One product of this initiative was a report titled, *High-Impact Education Practices*, which was published in 2008.  In this report, Dr. George Kuh addresses what these "high-impact education practices" are, "who has access to them," and "why they matter" (2008).  In her introduction to the report, Carol

Schneider, President of the AACU, states, "Kuh takes the examination of effective educational practices to another level.  Probing data collected through the National Survey of Student Engagement (NSSE), he shows that the practices the LEAP report authors initially described— with self-conscious caution—as 'effective' can now be appropriately labeled 'high-impact' because of the substantial educational benefits they provide to students" (Kuh & Schneider, 2008, p. 1).  In turn, the ELI working group considered these practices and their potential impact on learning as they worked to create a framework to complete FHU's engagement methodology.

The *High-Impact Education Practices* report describes ten education practices that, according to Kuh and Schneider, "have been widely tested and have been shown to be beneficial for college students from many backgrounds" (2008, p. 9).  These practices are as follows:

- First-Year Seminars and Experiences
- Common Intellectual Experiences
- Learning Communities
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- Diversity/Global learning
- Service Learning, Community-Based Learning
- Internships
- Capstone Courses and Projects (Kuh and Schneider, 2008).

Kuh and Schneider believe that these types of activities are effective because they

- demand that students devote considerable time and effort into purposeful tasks and invest into the activity, course, program, and college;
- demand that students interact with faculty and peers about substantive matters for extended periods of time;
- enable students to experience diversity through contact with people who are different from themselves;
- provide students with frequent feedback;
- provide students with an opportunity to appreciate the relevance of what they are learning in various settings;
- enable students to better understand themselves in relation to others as they study abroad, participate in service learning, conduct research with a faculty member, or complete an internship (2008).

The ELI working group crafted a framework for FHU's engagement methodology by defining categories of engagement based, in part, on the high-impact practices discussed in this report. In the remainder of this guide, we will examine FHU's Engaged Learning Initiative, including teaching strategies and techniques for engaging students within the Initiative's framework. This framework aligns with Behaviorist theory by providing a well-planned, systematic approach to implementing engagement strategies in the learning environment. This approach will not only help structure learning environments that are engaging for students, but will better support students as they work to achieve the expected learning outcomes across the breadth of programs and courses offered by the University. Note: Please see Appendix A for a list of additional resources on learning theories and modalities discussed throughout this guide.

## The FHU Engaged Learning Initiative

The Engaged Learning Initiative provides a framework to organize learning activities into a comprehensive program that will positively impact the FHU undergraduate student experience. In this section, we will examine the framework of the Initiative as developed by the ELI working group.

### The ELI Framework

The Engaged Learning Initiative offers a simple, yet comprehensive approach in categorizing and delivering learning activities to students. The framework of the Initiative is composed of five categories of engagement that utilize a shared delivery method to facilitate student engagement. Figure 2 identifies the categories of engagement as follows: Academic Research, Creative Expression, Global Citizenship, Servant Leadership, and Bridge Experiences.



**Figure 2**

Within each category, engagement activities are delivered through ELI Special Projects developed by faculty and students (See Figure 3.)

ELI Special Project
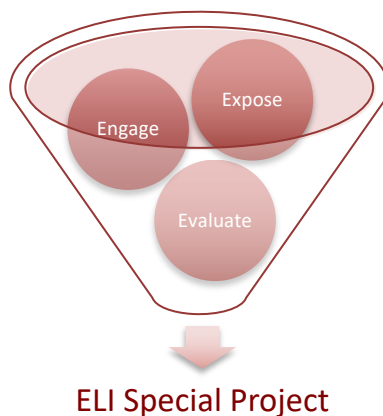
**Figure 3**

In the remainder of this section, we will examine the categories of engagement defined by the Initiative and discuss requirements and characteristics associated with ELI Special Projects.

## Categories of Engagement

The following is an explanation of the five categories of engagement, including their functional statements, descriptions, and guidelines for special projects associated with each category.

### Academic Research

In this section, we will examine the Academic Research category, including its functional statement, description, and guidelines.

Category Statement

The investigator will work to make a novel, meaningful contribution to a discipline-specific question or idea.

Category Description

A systematic pursuit of knowledge is essential to academic life. Academic research provides a means by which we can engage the world and seek understanding. Often through research, ideas are challenged, beliefs are revised, and meaningful growth occurs. By conducting research, investigators have an opportunity to independently investigate topics while also increasing overall knowledge in a particular field. The goals of specific research projects will vary, but it is expected that by conducting research faculty and students will

- identify a significant research topic;
- organize an approach to study the topic that will yield novel, meaningful insights;
- consider the context of a particular topic;
- systematically analyze and interpret quantitative and/or qualitative information; and
- draw responsible conclusions.

Guidelines for Special Projects

A proposal for a special project must involve sharing research results through publication or presentation to an interested audience (class, campus, or conference) and include a reflective component about opportunities and/or challenges of the project.  Examples of special projects that qualify for funding include, but are not limited to the following: conducting research off campus through internships or mentorships, collaborative projects between faculty and students on the FHU campus, and travel required to collect data for study.

## Creative Expression

In this section, we will examine the Creative Expression category, including its functional statement, description, and guidelines.

Category Statement

The student will explore the creative impulse through the design, execution, and display of a work of art.  Working individually or with a larger group, the student will create a work of visual, musical, theatrical, or literary art for public viewing.

Category Description

The visual, performing, and literary arts provide an outlet for individuals to explore the process of creativity.  As children of a Creator God, all people possess some capacity for either the appreciation or creation of artistic work.  Participants will explore the arts' conceptual framework and expressive process in the execution of an original work or in the interpretation of an artist's original work.  Interpretative work takes place when one explores the work of playwrights, composers, choreographers, or authors embodying these works with a larger company or alone.

All Creative Expression endeavors must

- challenge the student to articulate the process of artistic creation from project conception to execution,
- involve a public performance or presentation, and
- include a reflective component in the form of a journal or final essay.

Guidelines for Special Projects

The project must contain a significant experiential activity and reflective writing component.  Special projects may include, but are not limited to the following: a summer performance with a professional theatre, performance with a regional symphony orchestra, touring with a band, showing original art in a regional gallery, publishing a work of fiction, and travel to gain inspiration and broaden perspective needed for the creative process.

## Global Citizenship

In this section, we will examine the Global Citizenship category, including its functional statement, description, and guidelines.

### Category Statement

Participants will actively engage with people from cultures other than their own through travel, service opportunities, missions, or other study opportunities with the goal of increased cultural empathy and expansion of their perspectives of ethical responsibility, humane values, and social justice.

### Category Description

Global Citizenship education inspires dialogue, action, partnerships, and cooperation through formal and informal education processes.  It is a multifaceted approach employing various methods to promote human rights, peace, justice, and sustainable national and international relationships and resources.  Its ethos is shared responsibility.

We are members of many communities: our churches, our campus, our local community, our state, our nation, and our world.  As such, we have an opportunity to understand and appreciate the differences between people from cultures other than our own and the interconnection between cultures.  This understanding and appreciation, in turn, should lead us to an awareness of our social responsibility to those in all the communities we are members of.  As Christians, we have a special calling to be engaged as global citizens; a part of our Christian mission is to care for others, meeting temporal needs, as well as spiritual needs.

The goal is to move toward an understanding that being a global citizen involves an ongoing process of development (learning and growth).  The most important elements in the development of global citizenship is the constructive engagements with those who are different; opportunities to pursue social avenues that advance human rights; and discussions with peers, faculty, and diverse community or international groups.

### Guidelines for Special Projects

The project should stimulate cultural empathy gained through interaction with community, national, or internationally diverse groups.  The project must contain a significant experiential activity and reflective writing component.  Examples include, but are not limited to the following: a mission trip experience, an activity that requires interactions with and service to members of a different community, and internship experience in a foreign or diverse culture.

## Servant Leadership

In this section, we will examine the Servant Leadership category, including its functional statement, description, and guidelines.

Category Statement
The participant will explore and experience leadership from a servant–first perspective.

Category Description
Individuals that choose to participate in this category will be exposed to experiences and activities designed to expand the traditional role and practice of leadership.  A leader that develops through this program should strive to be a servant first, as modeled by our Lord Jesus Christ.  Participants in this program area will be exposed to leaders and leadership concepts that exhibit the servant leadership model and identify how the areas of service and leadership can coexist in them and their vocation. The project must substantially explore or develop two or more of the following characteristics of servant leadership:

- performing service to others,
- engaging in a holistic approach to work,
- promoting a sense of community, or
- sharing power in decision-making.

Guidelines for Special Projects
Special projects shall have a substantial leadership component and address two or more of the servant leadership elements above.  The developers of the project will need to demonstrate in the proposal how the project will be considered for servant leadership credit by linking the project to the traits and characteristics of servant leaders.  A student project requires a minimum of 120 hours of involvement and must have an academic sponsor.  In addition to the reflective writing component, the student must keep a journal and a log of activities throughout the duration of the project.  Examples include the following: mission trip organizer and leader, service project coordinator, and undergraduate research team leader.

## Bridge Experience
In this section, we will examine the Bridge Experience category, including its functional statement, description, and guidelines.

Category Statement
Participants will actively engage in a professional development experience.

Category Description
Participants will use this opportunity to further enhance their scholarly pursuits through internships, practicums, and other opportunities to work alongside professionals or in professional settings.

The Bridge Experience provides students and faculty opportunities to cultivate and enhance talents related to their specific professional fields of interest.  The opportunities provided

through the Bridge Experience will also serve to build, or bridge, relationships among the distinct colleges of the university with the professional communities at large.

<u>Guidelines for Special Projects</u>
To be considered as a Bridge Experience special project, the experience must be completed in association with a content-related course.  Examples include, but are not limited to the following: student teaching experience outside of major requirements, nursing clinical experience outside of major requirements, internships, and specialized training for new course development.

## ELI Special Projects

An ELI Special Project should be individually designed by a faculty member or student to pursue a specific academic interest.  Each project should incorporate the Three E's of Student Engagement, as defined by FHU's Engagement Methodology, into the activities that comprise the project.  A project may be completed in any of the five engagement categories defined by the Initiative.  Faculty and students are encouraged to submit proposals to the Engaged Learning Committee to seek funding for a project.  Funding cycles will be scheduled to facilitate fall, spring, and summer projects.  Workshops organized through the Center for Instructional Innovation will assist faculty in the development of project proposals (See Appendix B).  A rubric has been developed for use by the committee to assess proposals and approve funding (See Appendix C).  Sample ELI forms may be found in Appendix D.

## Techniques for Student Engagement

Exposing students to new concepts and ideas, engaging them with new experiences, and asking them to evaluate their experiences through critical reflection and discourse is central to facilitating the learning experience proposed in this guide.  The Engaged Learning Initiative, as outlined in the previous section, provides a framework for delivering strategies and techniques that will foster the above.  In this section, we will examine the book titled, *Student Engagement Techniques: A Handbook for College Faculty* by Elizabeth F. Barkley.  Faculty will find Barkley's examination of the traditional and engaged learning classroom insightful and her review of techniques that transform the teacher-centric classroom into a student-centered learning environment a valuable resource.  Barkley's application of accepted learning theories will help each instructor transform his or her classroom into a community of learners.  Throughout this section, we will reference Barkley's work and encourage the reader to view her book as a companion guide.

## Traditional and Engaged Learning Classroom Environments

To begin our discussion on student engagement techniques, we will first compare and contrast the traditional and engaged learning classroom.  This discussion will set the stage for the introduction of new strategies and techniques by addressing the challenges and benefits of transforming the traditional classroom into a community of learners.  At the heart of this discussion is the instructor.  Barkley states that, "How instructors operate in the classroom is influenced by their personal vision and philosophy about teaching and learning, as well as the discipline, course objectives, class size, student experience, and unique characteristics of a particular class" (2010, p. 95).  Each of these criteria will determine how the course functions and how the learning process is viewed by students.

### Traditional Classroom Environment

Ask anyone in academia what his or her vision is of the "traditional classroom" and you will probably get a similar response.  The traditional classroom focuses on the teacher and his or her lecture.  Seats are organized into rows with the instructor positioned at the front of the classroom or lecture hall.  Students are expected to work independently and refrain from disrupting the class by interacting with their peers.  A series of lectures on specific topics are delivered throughout the term that address expected outcomes for the course.  Textbook materials, homework assignments, and formal assessments are purposefully selected by the instructor to support these lectures.

The purpose of this environment is to help students build a knowledge base that often leads to memorizing content.  While this method is fast and efficient for the instructor, it does not address how the student constructs knowledge.  Hence, learning tends to be superficial and temporary.  The instructor may solve a problem on the board and have students practice problem-solving at home.  In which case, the student's success is solely dependent upon their individual abilities.  Cognitive learning techniques, such as ZPD, mentoring, and scaffolding are rarely applied.  Assessments focus on the aspects of knowledge that are easily tested (a repeat of facts and information) and do not replicate the challenges that adults face in real life situations, such as in the workplace.

For students, lectures seem frustratingly slow and oftentimes unnecessary.  As a result of neuroplasticity, their minds have adapted to processing incoming streams of information in fast, short bursts.  Regardless of one's opinion regarding the digital world in which we live, we must acknowledge that students often struggle with maintaining attention and the speed in which information is delivered.  Learning is neither challenging nor motivating.  It is simply a task that must be endured.  Barkley uses the following illustration from a fellow educator to spotlight the attitudes of disengaged students:

> *[Students] in my classes are hopeful, but generally anxious and tentative.  They want all classes to be easy, but expect that most will be hard.  They wish their major (whatever it might be) did not require math, science, or English courses.  A good number will not speak in class unless called on.  Most like, want, indeed need teachers who tell them exactly what to do.  Education is something done unto them.  It frequently involves stress, anxiety, and other forms of discomfort. (2010, p. 31)*

Most instructors would agree that this section paints a negative picture of the traditional classroom environment.  Many would argue that these criticisms are exaggerated and perhaps unjustified.  Barkley, and numerous others, would assert that many of the negative traits mentioned above are real.  **However, the purpose of this guide is not to degrade time-honored teaching practices, but to enhance those practices with proven strategies and techniques that can have a positive impact on the millennial learner.**  Lectures, and their supporting activities, will continue to have their place in today's classroom; however, these cannot be the only activities incorporated in the curriculum if we want truly engaging courses.

### Engaged Learning Classroom Environment

The "engaged learning classroom" moves the focus from teaching to learning and emphasizes the needs of students in the learning process. The layout of the classroom is less formal and may be rearranged based on the needs of students as they are actively engaged in coursework. The role of the instructor changes from teacher to facilitator, and students become active participants in the learning process. Students are interested, intrigued, participate in discussions, provide personal examples, and are actively engage with one another.

A sense of community is formed where students are motivated to succeed by addressing common goals and meeting course objectives. The instructor's expectation for his or her students' success is evident by his or her positive interaction with the students. This sense of belonging enables students to take risks and ask questions even when they are unsure of their own abilities. Learning is enhanced when students are motivated to learn. The positive feelings that are derived from the learning environment enable them to mentally and emotionally invest themselves in the learning process.

To facilitate this environment, instructors are willing to "loosen the reins" and let students take responsibility for the learning within a framework created by the instructor. Flexible assignments and assessments are given along with various options and alternatives for learning. This might include standalone learning-modules, parallel learning processes, and learning contracts that empower students to take responsibility for achieving expected outcomes. The instructor (as facilitator) assists the learner in choosing his or her own pathways to the endpoint identified by course objectives. This helps students move beyond foundational knowledge and develop higher-order thinking skills by "learning how to learn."

Many instructors would argue that the above picture is unrealistic and does not reflect the mindset of today's students. Regardless, each desires to have students who are motivated and engaged in the learning process. Barkley argues that students can be motivated to engage in learning through the application of proven student engagement techniques. To Barkley, student engagement may be defined as "feeling motivated, being challenged, and excited about the new" (2010, p. 40). She shares a quote from a former student to support her argument:

> *Students are engaged when they are treated with respect. If low expectations*
> *are set, the students will not feel that they are being challenged, and will tend to*
> *not care about the class. I do not mean that by setting high expectations, the*

*professor is being unrealistic. High expectations would simply result in creating an atmosphere where students feel comfortable to test their limits of knowledge. [Teachers can engage students] by creating class discussions where everyone feels they can participate, even if an incorrect answer is given. It is amazing to think that many college students are still afraid to raise their hand in class to give their opinion. I think that as soon as they feel comfortable doing this, they can feel that the classroom is a time for true growth, not just a time to get a passing grade, as they move on to the next mediocre class. I think this can be accomplished by giving assignments to students that force them to question their present reality, and the reality of those around them, as it relates to the subject of the class. (2010, p. 40)*

Barkley's student, in a simplistic way, addressed strategies and techniques that are supported by various theories of learning. In the reminder of this section, we will examine these techniques and their potential impact on the teaching and learning process. Please note that throughout the guide, we have used the term, "Engaged Learning" to describe the type of environment that the ELI attempts to create. Barkley uses the term, "Active Learning" to describe a similar environment. Since this section focuses on Barkley's work, we have chosen to apply her terminology as well. In reality, "Engaged Learning" and "Active Learning" are one and the same.

## Challenges for Instructors

Instructors face many challenges in transforming a traditional course into an Active Learning course. Barkley believes that identifying and addressing these challenges will enable the instructor to step out of his or her comfort zone and mitigate the risks associated with such an endeavor. Some of these challenges may include large class sizes, fixed-seating classrooms, student commitment to the learning process, and the shear volume of work required to facilitate the transformation. For example, instructors are too familiar with students who desire to simply earn a passing grade rather than becoming independent, critical thinkers. They are easily distracted (by social media, etc.) and feel forced by the university to enroll in classes for which they have no interest (General Education courses, etc.) This fosters a lack of enthusiasm that must be addressed by the faculty member. Facing these challenges can be overwhelming and may cause faculty to be hesitant to try something new.

In addition to the above, the process of creating a new learning environment can be daunting as well. This is especially true if the faculty member is new to the Active Learning model. For some faculty, it is difficult to shift emphasis from the "learning of information" to "learning how to find and use information." Instructors need time to develop and deliver lessons and assessments that guide the learning process. This will require a thorough review of existing teaching methods and a sound understanding of the new learning environment. To newcomers, the classroom may appear disorderly as groups of students interact and

collaborate as they search for information and prepare to make application of their findings. Instructors must be prepared to manage disruptions and adjust "on the fly" as lessons take unexpected turns.  Students may resist change because the new environment threatens their existing perspectives of how learning should take place.  The above examples demonstrate that the teacher-student relationship is significantly impacted by the transition to the Active Learning model.

Finally, instructors must be prepared to invest additional time and resources in preparation for delivering Active Learning courses.  For example, assessing each student's existing knowledge base and finding a collective starting point can be a time consuming task.  Learning occurs in the gap between a learner's current understanding and potential understanding (ZPD).  Students must connect what is being learned to what is already known (Scaffolding).  Every student's knowledge base will differ from that of other students.  Thus, learning will become unique for each student as strategies and techniques are applied.  Ignoring this one principle can have a detrimental impact on the learning process.  Just the simple act of guiding and encouraging students to ask and answer challenging questions is time consuming to facilitate.  Each of these examples illustrate that a considerable amount of time must be invested into the learning process on the part of the instructor.  In addition, the demand on the instructor's time may reach its apex at the end of the semester, which is most often the most stressful time for faculty.  The instructor must be prepared to deal with these demands in order to maintain a positive learning environment.

With so many challenges, why would an instructor desire to embark on such a journey?  Many would argue that the benefits of creating an environment where students are engaged and develop into independent, critical thinkers are well worth the effort.  Furthermore, the task of creating this environment is attainable through the application of proven strategies and techniques that worked for faculty who possessed similar enthusiasm and talents.  With determination and effort, faculty can create learning communities where students are engaged and excited about learning.

## Qualities and Characteristics of an Engaging Teacher

What are the qualities and characteristics of educators whose classroom is perceived as engaging?  This is a question that many instructors ask as they reflect on their individual personalities and teaching styles.  No doubt, the instructor's personality and behavior greatly impacts the student's motivation to engage in the learning process.  A student who is not intrinsically motivated by his or her studies will still put forth reasonable effort if he or she likes and admires the teacher.  The reverse is also true if he or she views the teacher in a negative light.  Instructors who are authentic, enthusiastic (better yet, passionate), energetic, approachable, and fair in their dealings with students are often perceived as engaging teachers, regardless of the methods they incorporate into their pedagogy.

# Best Practices for Student Engagement
## A Faculty Guide for the Engaged Learning Initiative

To successfully facilitate student engagement, Barkley believes that every instructor should exhibit the following qualities and characteristics:

### Be Caring

An instructor who cares about his or her students is normally more engaged than one who is emotionally detached.  An instructor who is emotionally detached often views his or her role as a "dispenser of knowledge" as opposed to a mentor who is vested in the well being of the student.

### Welcome New Challenges

Transforming a traditional course into an Active Learning course is a challenging task.  More importantly, teaching in this environment will present unforeseen challenges on a daily basis.  The instructor must not only embrace those challenges, but also use them to fuel his or her passion to teach.

### Exhibit a Positive Attitude

The instructor must exhibit the expectation that every student can succeed.  The Active Learning classroom is challenging for students as well.  The instructor's positive attitude will have a major impact on the student's self-confidence and his or her ability to succeed.

### Be an Effective Communicator

The ability to connect and communicate is critical in an environment that is often chaotic and disruptive for students.  Instructions and expectations must be clearly articulated to students in order for them to succeed and attain the desired outcomes.

### Be Well Organized

Integrating Active Learning strategies and techniques into the classroom environment will introduce a myriad of new activities.  These activities must be well organized and focused on attaining the targeted outcomes.  "Organized chaos" is a phrase that may best describe groups of students engaged in searching for and applying newfound knowledge.  The ability of the instructor to organize these tasks and maintain focus will greatly impact the student's success in these activities.

### Be Respectful of Students

One goal of active learning is to give students the latitude to discover new knowledge and make application in order to facilitate a deeper level of learning.  This requires students to take risks as they research and defend newfound positions.  The teacher must be respectful of their efforts to ensure they remain motivated and engaged in the process; else, their confidence may be lost.

Be Approachable

Active Learning classrooms are often described as "communities of learners" that are composed of both teachers and students. Students are best motivated to engage in the learning process when they feel part of a community with shared goals and challenges. The students should view the instructor as approachable in order to facilitate an environment where the instructor can serve as a mentor to guide them through the process.

Be Discerning When Mentoring Students

The instructor must discern when to step in and teach verses when to step back and allow students to struggle to find answers. Educators are often viewed as the "dispenser of knowledge." Over time, students may come to expect that instructors will provide all the answers. Instructors must recognize the benefits of allowing students to discover knowledge for themselves. He or she may provide the student a starting point or offer guidance through the process, but ultimately sees his or her role as a facilitator.

Model Active Learning Through Teaching

The instructor should model Active Learning. Discovering and applying new knowledge takes time and is a process that students must learn. The instructor has the opportunity to demonstrate the process through scaffolding tasks, pursuing milestones, and reflecting on the pathway to the finished product. The right answer may not always be the first answer; nevertheless, students will develop an understanding and appreciation for the process through the instructor's persistence.

Engage in the Scholarship of Teaching and Learning

Barkley views the Scholarship of Teaching and Learning as the process of researching, applying, assessing, refining, and sharing the manner in which a faculty member teaches. Barkley argues that every instructor should seek ways to improve upon his or her pedagogy. This applies not only to the subject matter, but also how it is taught. The faculty member must be willing to try new strategies and techniques, assess their application, and share his or her results with other faculty to remain engaged as a teacher.

Freed-Hardeman is blessed to have faculty who exhibit many, if not all, of the qualities and characteristics identified above. Many would argue that our University has the most qualified and caring faculty in the world! We agree. Hence, the goal of this section is not to identify what is lacking, but to help faculty reflect upon the qualities that make them great, and to use those qualities to positively impact the learning process.

## Transforming a Teacher-Centric Classroom into a Learning Community

The title of this section may convey to the reader that he or she is on the threshold of being indoctrinated with a plan to transform the classroom into a learning community permeated

with Active Learning strategies and techniques. **To some extent, this is true; however, no step-by-step plan exists to accomplish the above.** Barkley states,

> There is no single tip, technique, or strategy that offers a magic formula or blueprint for student engagement. What works for one student doesn't work for another; a technique that is a guaranteed winner for one teacher falls miserably flat when tried by a colleague; a carefully planned course that was a giddy success in the fall doesn't get off the ground in the spring. (2010, p. 45)

In light of her assertion, how does a faculty member create an engaged community of learners? Barkley offers a practical approach that examines the balance of power, function of content, role of the teacher, responsibility for learning, and the purpose and processes of evaluation with the goal of assisting the instructor in creating an individualized plan to transform his or her course.

In order to better understand and appreciate Barkley's approach, we will first examine key concepts related to learning communities and the transition process that she articulates in her book. Barkley believes that formal educational environments normally involve teaching, learning, and assessment. These environments have become rigid with emphasis being placed on the teaching and assessment dimensions. This has limited success in the most important dimension, which is learning. To summarize this point, Barkley states "learning can—and often does—occur without teaching, but teaching cannot occur without learning; teaching without learning is just talking" (2010, p. 16). Barkley believes that engagement is central to learning. The goal is not to entertain, but to create an environment where students think, do, and learn. When students "think," they transform and reflect on the content to make meaning of it. When students "do," they move from content coverage to uncovering the content through application, and students "learn" when they embrace the responsibility for learning at the intersection of "thinking" and "doing." This concept is reflected in Bloom's Taxonomy of the Affective Domain where a student advances from a willingness to learn, to a desire to learn that ultimately impacts his or her values, beliefs, and behavior. Hence, Barkley's approach to increase student engagement is simply based upon effective teaching.

Barkley believes that fostering motivation is the first and most critical step toward increasing engagement. Most teachers agree that typical teaching and learning challenges disappear when students are motivated. So, how can a learning community be created that motivates students to engage in the learning process? The answer is not simply rearranging the classroom to accommodate group activities (although mobility is an important aspect of the classroom layout), but by addressing the needs of students. Barkley asserts that students become engaged when they feel they are valued members of a community, when they work at their optimal level of challenge (neither bored or overwhelmed), and when they learn holistically. One basic need of students is to be part of a social community. This is

accomplished when students feel included, honored, important, and contributing members of the community as they actively collaborate to construct knowledge and gain meaning through the application of knowledge.  Assessing existing knowledge and applying techniques such as differentiating course elements and scaffolding will help ensure each student is optimally challenged.  Finally, researchers now recognize that holistic learning moves beyond intellectual reasoning and includes intuition and perception.  Barkley states "the body, heart, and mind are all involved in learning and that all three make contributions to engagement" (2010, p. 33).  The above clearly illustrates that the learning community does have a significant impact on the student's motivation to learn.

In light of the above, what is Barkley's approach to the course transformation process?  In her book, Barkley adopts *Weimer's and Blumberg's Learner-Centered Teaching* approach to construct an individualized plan to integrate Active Learning strategies and techniques into a predominately teacher-centric course.  This approach identifies both dimensions and components of a course that must be addressed in order to facilitate a successful transformation.  The dimensions associated with this method were summarized at the beginning of this section.  These included the balance of power, function of content, role of the teacher, responsibility for learning, and the purpose and processes of evaluation (Please note that we have chosen to address the role of the teacher and the responsibility for learning in conjunction with the balance of power.)  Each dimension must be understood and addressed as course components are identified and transformed.  A course component is any content item or activity that is used to facilitate teaching and learning (i.e., lecture, documents and files, projects, assignments, assessments, etc.)  In summary, this approach will facilitate the creation of an individualized plan that accounts for the unique characteristics and requirements presented by a given course.

Based on Barkley's work, we suggest the following as a best practice for approaching the course transformation process:

1. Review course-level learning outcomes for relevance and clarity.  Are the outcomes relevant and clearly articulated in light of the course's description and purpose, program-level learning outcomes, and the institution's mission?
2. Identify the current status of each component of the course.  Does the component address one or more of the stated course-level learning outcomes?  Is its purpose relevant or is it antiquated?
3. Determine which components you wish to transform with Active Learning strategies and techniques.  Initially, the instructor should only select components whose transformation is easily conceptualized.
4. Address the following dimensions for each component in your transformation plan: Balance of Power (Role of the Teacher and Responsibility for Learning), Function of Content, and Purpose and Processes of Evaluation.

5.  Review, group, and prioritize the changes you wish to implement.  Proceed at a pace that is impactful, yet sustainable (Barkley asserts that even small changes can communicate to students that you want to facilitate engagement and promote a sense of community!)
6.  Implement the plan by changing how you teach.

We urge each faculty member to consider the Three E's of Student Engagement as they set goals and objectives for each component of the course.  The strategies and techniques employed should work to ensure that students are exposed to new concepts and ideas, engaged in new experiences, and offer students opportunities to evaluate those experiences through critical reflection and discourse.  Various student engagement techniques (or SETs) are offered by Barkley to facilitate the above.  In the remainder of this section, we will focus on each dimension that must be addressed during the transformation process.  An appreciation and understanding of each dimension will greatly determine the success or failure of each component to achieve the desired outcomes.

## Balance of Power
The balance of power in the classroom will greatly determine the type of learning environment that is facilitated in a course.  We understand that students will better engage in the learning process if they feel welcomed, valuable, and contributing members of a learning community.  But, how is this accomplished?  In a true learning community, teachers and students must partner in the learning process.  A fundamental shift in the traditional balance of power between teachers and students is often required to create this partnership.  Barkley encourages each instructor to genuinely consider the following questions to facilitate this shift:

1.  Who controls the content that is covered and how it will be assessed?
2.  Who controls the pace at which content is covered?
3.  Who controls and regulates the flow of communication?

Barkley asserts that most instructors would answer, "I do" to each of these questions.  Their answers serve as a starting point for examining their role as teachers, who is responsible for learning, and how power may be shifted to facilitate a true partnership in the classroom.  In the following sections, we will examine the role of the teacher and the responsibility of the learner.

### *Role of the Teacher*
Discussions on the role of the teacher and the shift of power in the classroom are disturbing, even frightening topics for many faculty members.  What does it mean to change one's role from teacher to facilitator?  Is it realistic to expect that students will accept responsibility for learning?  How can order and civility be maintained in the classroom when today's learners appear to lack respect for authority figures, especially those in academia, and the learning process?  The answers to these questions will be determined, in large part, by the approach

that is taken by the instructor.  In this section, we will discuss the role of the teacher in the Active Learning classroom.

The creation of a learning community does NOT require the instructor to relinquish control of the course; however, it does require that a framework be established that maintains order and direction, while enabling students to bring a rich array of experiences, insights, and ideas to the class.  The framework must allow for mutual respect and value the contributions of the learner equally with the contributions made by the instructor.  Hence, the instructor partners with students in order to facilitate learning.  For example, instead of lecturing in front of the class, the framework allows for students to perform more of the work, including the discovery and application of knowledge.  The teacher, as facilitator, will guide and direct students as they search and apply newly discovered information.  Articulating clear and relevant goals, holding students to high expectations, and providing them with guidance and prompt feedback throughout the process will serve to create such a framework.

Most people agree that the first days of a new term set the tone for a course.  The instructor should make every effort to establish the partnership framework from day one, and the syllabus is a great place start.  The language used in the syllabus should reflect the positive aspects of the partnership.  Too often, the syllabus is used to address every possible thing that could go wrong in a course and establish rules to prevent future disaster.  While it is certainly appropriate to articulate policy and procedures, the syllabus should also define the teacher-student relationship and the positive impact this partnership can have on the learning process.  Consider the following syllabus-related activities to nurture the learning partnership:

- Prior to reviewing the syllabus, the instructor could ask students to articulate what topics, questions, and issues they believe the course should address.  As the syllabus is reviewed, the instructor could clarify goals and content in light of the student's ideas and augment his or her course plan by addressing student-generated topics, if appropriate.
- A sense of community could be established by having students form groups to develop questions regarding the syllabus.  Once questions have been generated, the instructor could ask students to review the syllabus for answers and discuss those that remain unanswered.

These are two simple activities that will serve as ice breakers and help establish the partnership that Barkley discusses in her book.

Students must be oriented to the Active Learning process in order to succeed.  Throughout the course, the teacher will facilitate tasks that require students to discover knowledge, apply concepts, solve problems, discuss issues, and reflect on the factors that influence their thinking.  Many students have never been exposed to these types of strategies and techniques.  The

instructor should explain why the course is organized around Active Learning principles. Consider providing handouts that will help students understand the purpose of each strategy and technique. In addition, the teacher should prepare a statement that addresses classroom civility. The statement should clarify expectations for behavior and consequences for unacceptable behavior. It should enable the instructor to confront problems as they arise and provide students with a method to air grievances. The statement should set ground rules for group interaction, including contracts that outline policies, procedures, and penalties related to group work. The instructor should incorporate student input into the development of these policies and procedures in order for the students to feel vested in the process.

Throughout the term, the teacher should focus on the learning environment and helping each student succeed. Students should work in their *Optimal Challenge Zone* (OCZ). Assessing each student's starting point and creating *Differentiated Course Elements* (DCEs) to meet the needs of individual learners may accomplish this goal. Help students move beyond dualistic thinking to more complex states of understanding and development. Remember that students will expect the teacher to provide the correct answer. Students should realize that there may be multiple answers to a question, but all are not equal. Help students discover the best answer as opposed to the correct answer. In the Active Learning classroom, students are expected to apply critical thinking skills and reasoning to determine the best answer. Emphasize personal causation by allowing students to plan, set goals, make choices, and use self-evaluation to check their progress in learning activities. Guide students in setting realistic goals and providing them with encouragement that concentrates on their efforts and spotlights successes. Use praise and criticism effectively and reach out to students who are in need. Provide feedback that is timely and relevant to facilitate opportunities for intervention and adjustment. Asking students to reflect in journals and Minute Papers at the end of class will enable students to conceptualize successes and failures and reveal these to the instructor in a timely manner.

As previously stated, the instructor is no longer the "dispenser of information," but a facilitator of learning. Does lecture still have a place in the instructor's pedagogy? Absolutely! However, its primary purpose should be to provide knowledge that students cannot easily and efficiently attain for themselves. In addition, the lecture should be shortened, segmented by topic, and intermixed with activities that support each segment. This will enable the student to process new information within his or her optimal attention span. As facilitator, the instructor should help students discover new knowledge, activate prior knowledge, and promote the effective transfer and retention of knowledge. Consider incorporating activities that focus on course content to help students identify prior knowledge, clarify learning gaps, and provide reassurance that other students are at a similar starting place. Oftentimes, students are not successful in accurately connecting new material to existing understanding or how it may be applied. The instructor should help students make connections between past learning and new learning by incorporating various strategies into his or her pedagogy. For example, teach a skill just before the students have an opportunity to use it and ensure the learning situation is

similar to the situation in which the material or skill will be used.  Finally, help students make an emotional connection to what they are learning by foregrounding the human dimension that underlies the content.  Teachers can help students find meaning and personal relevance in a topic by asking them to connect what they are learning to their past, to what is going on presently in the world, or to the professional or civic responsibilities they may have in the future.

The above examples illustrate activities that differentiate the role of teacher and facilitator.  Barkley provides numerous strategies and techniques in her book to help the instructor transform his or her role in the classroom.  These activities will help the instructor shift the balance of power and create the learning partnership that is described in this section.

### *Responsibility of the Learner*
The dynamics of the learning partnership and the framework that is developed to facilitate that partnership may initially seem as foreign to students as it does to faculty.  Like faculty, students must understand their role in the partnership.  In this section, we will discuss the role of students and their responsibilities when transitioning to an Active Learning environment.

Students must be willing to receive knowledge and accept responsibility for the process in order for true learning to take place.  No longer does the faculty member function at the center of the learning environment.  The discovery and application of new knowledge becomes the responsibility of the student.  The occasional lecture is now intermixed with opportunities for research, collaborative learning activities, and application of knowledge in both individual and group settings.  The instructor has defined learning outcomes, but the student must determine (with guidance from the teacher) the best method to achieve those outcomes.  What must the student do to succeed in this new role?  In summary, Barkley believes that students must engage in the following activities and pursuits:

#### Become a Member of the Learning Community
Students must be open and respectful of their classmates' beliefs, values, and past experiences.  In addition, students must be willing to take risks by exposing their own vulnerability as they express their thoughts, opinions, beliefs, and values.  Valuing each student's input and potential will help facilitate his or her matriculation into the learning community.

#### Become Involved in the Academic Task at Hand
This is best accomplished when students are challenged holistically.  In simple terms, students must think, do, and learn on a cognitive and affective level.

#### Exercise Power in the Learning Environment
When students realize that the instructor will not provide all the answers or processes to solve a problem, they will begin to exercise power tentatively and anxiously, wanting feedback and

needing reinforcement in order to move forward with a bit more confidence.  This is when true engagement begins!  In addition, as students exercise power and progress, they naturally gravitate to function within their Optimal Challenge Zone.

<u>Take Ownership of Information, Ideas, and Concepts</u>
Students must connect existing knowledge with new knowledge by examining, questioning, and relating each to the other.  Through reflection, students will create knowledge and develop perspectives that are uniquely their own.

<u>Respect Mutually Agreed Upon Policy and Procedures</u>
This is accomplished by engaging students in the development of policies and procedures that govern classroom interaction and civility and by holding each student accountable as they engage in the learning process.

Students will not magically accept responsibility for the learning process without guidance from the teacher.  This guidance is best provided through the partnership framework that was previously discussed.  A viable framework must recognize and address each component of the student's role as identified in this section.  This will best ensure that every student has the opportunity to accept responsibility for the learning process.  Strategies and techniques to help students embraced their roles are discussed in Barkley's book and reviewed in the section titled, "Student Engagement Techniques."

In summary, the balance of power is a dimension that must be addressed in every Active Learning course.  This must occur even if only certain components of a course are being transformed.  Regardless of the extent to which this occurs, a learning partnership must be established between the instructor and his or her students.  This partnership must be based on a framework that allows for a shift in power and equally values the contributions of all parties involved.  In addition, the partnership must recognize the mutually agreed upon roles and responsibilities of each party and hold each accountable.  This type of partnership will enable the instructor to assume the role of facilitator and guide students as they engage in the learning process, exercise power in the learning environment, and take ownership of the product.

## Function of Content
The second dimension that must be addressed when transforming a course or one of its components is content.  For Barkley, content addresses the knowledge and skills that are taught in a course.  Understanding the content and how it is used is a critical step in the transformation process.  In this section, we will examine how content is identified, organized, and delivered within the framework of the course.

An analysis of content should first begin with an examination of the course's learning outcomes and objectives.  Learning outcomes represent what the faculty member, department, and

institution expect students to achieve upon completion of a course or module. The faculty member should first determine if existing outcomes are relevant to the course's overarching purpose and stated with clarity and purpose. In some instances, outcomes may be defined at the department level (or higher) for multiple courses and across multiple sections. However, it is the faculty member's responsibility to ensure that outcomes communicate accurate and relevant expectations. In addition, the instructor may define objectives that serve as guideposts for students as they work to achieve learning outcomes. These should be examined for clarity, purpose, and relevance as well. In summary, learning outcomes and objectives should be used to guide faculty as they critique the course's content.

Students must develop an appreciation for the value of knowledge and skills associated with the course. This includes learning tasks that promote and convey its content. Without this appreciation, students lose their sense of direction and purpose. In addition, they can become frustrated when they do not understand why they are being asked to engage in a certain task. Barkley believes that students better appreciate direction and purpose when learning goals, activities, and assessment are integrated. She offers several methodologies to accomplish this task, including *Wiggins and McTighe's Backward Design Methodology*. In this methodology, the teacher first determines what students should know, understand, and be able to do. Next, he or she will determine what would constitute evidence that students have achieved an enduring understanding of the content. Finally, the teacher designs academic prompts, tasks, and projects that assess the student's depth of understanding.

The product of this methodology can be used to select and implement Active Learning strategies to address the course's content. In the first step, Barkley encourages the instructor to identify and categorize

- content that is worth knowing,
- important knowledge and skills, and
- essential understandings that anchor the course.

Differentiating content in this manner will enable the instructor to focus on critical content and make better choices regarding the kinds of tasks that would promote active learning among students.

In the second step, the instructor should employ higher-order thinking skills to promote a deeper understanding of the subject matter. Hence, activities should be designed to ask the student to do the following:

- Explain
- Interpret

- Apply
- Demonstrate perspective
- Empathize
- Demonstrate Self-Knowledge

In the third step, the instructor should specify criteria and evidence that will be used to determine the degree to which understanding has been achieved.  The criteria and evidence used to gauge understanding is unique to each course, topic, and activity.

This methodology integrates learning goals, activities, and assessment.  This integration will help students better appreciate and understand the content.  Barkley also notes that understanding is best achieved when students must grapple with ideas and core processes that reach to the heart of a discipline rather than memorizing facts and figures.  Engaging in tasks that require higher-order thinking will better serve to meet these criteria as well.

Organization of content is another critical facet of this dimension.  The faculty member should consider how content has been organized in the past, and how content might be organized within the Active Learning environment.  According to Barkley, research indicates the following thresholds:

- The average adult's working memory can handle between five to nine items of information at once.
- The average adult can process an item for ten to twenty minutes before mental fatigue or boredom occurs and attention drifts.

With this mind, Barkley suggests that content should be "chunked" into smaller and similar segments that are logically related.  In addition, chunks should be limited to seven topics or less.  The instructor should break up the delivery of content by intermixing presentations with other types of activities.  Course segments should never exceed twenty minutes.  Memory retention is greater at the beginning and end of a session.  Introduce new content at the beginning of a session, give students the opportunity to process newly acquired content, and engage in closure activities at the end of the session.  The first five minutes of a session is "prime time" for student retention.  Faculty should try to avoid using this time for non-learning activities such as taking attendance, distributing grades, and collecting homework.  Finally, consider flipping class time by using face-to-face meetings for Active Learning activities.  Organizing content in terms of how it is chunked and when it is presented greatly impacts retention and understanding on the part of students.

The final topic that we will discuss regarding the function of content is Differentiated Course Elements.  DCEs provide students with multiple pathways to meet learning outcomes and

objectives.  This strategy takes into consideration various learning styles and motivational factors across a broad spectrum of students.  It also enables each student to select the best entry point for his or her knowledge and skill level.  By providing students with options to achieve learning, they become motivated, gravitate to their individual learning styles, and take ownership of the learning process.  To implement this strategy, the instructor must

1. define learning outcomes and objectives for the course component,
2. develop multiple activities to address each outcome and objective,
3. allow students to select the activity they wish to pursue, and
4. administer a summative assessment to gauge mastery of the topic or skill.

For example, the instructor might develop learning modules and activities that address various learning styles and topics, while moving students toward meeting a common goal.  A student would select a particular module and engage in its activities until he or she masters its content.  Some modules might require out-of-class activities, while others might include activities performed in class where students could receive immediate feedback and guidance.  In addition, an individualized *Learning Contract* may be used to formulize the process by

1. articulating learning outcomes and objectives,
2. identifying various types of activities that may be pursued,
3. offering a "wild-card" activity where students develop their own project, and
4. establishing assessment criteria to gauge learning.

As seen above, Differentiated Course Elements provide students with multiple pathways to achieve learning.  Faculty may find this concept overwhelming at first glance, but should remember that offering just two pathways will empower and motivate students to engage in the learning process.

In summary, understanding the function of content within the Active Learning environment is a critical facet of the transformation process.  This dimension will determine how course content is identified, organized, and delivered to students.  The instructor should examine learning outcomes and objectives for clarity, purpose and relevance.  Various strategies and methods may be used to differentiate and address content with Active Learning activities.  The organization of content should take into consideration the manner in which individuals process and retain information.  Finally, the instructor should consider incorporating Differentiated Course Elements and Learning Contracts into the course plan to empower students with multiple pathways to achieve the goals of the course.

## Purpose and Processes of Evaluation
The third and final dimension that must be addressed when transforming a course or one of its components is evaluation.  To begin this process, the faculty member should review and

categorize existing assessment strategies and techniques in his or her course. Special attention should be given to self-evaluation and the methodology employed. These attributes will greatly determine the degree to which students take ownership of the learning process. In this section, we will examine the various types of assessments found in courses, their impact on student development, and the use of feedback in the evaluation process.

Barkley identifies three types of assessments that are commonly found in courses: Summative, Formative, and Authentic. *Summative Assessment* is normally administered at the end of a topic, unit, or course. The purpose of this type of assessment is to "summarize" the learning that has taken place and assign a grade. *Formative Assessment* is process-oriented and developmental in nature. The primary purpose for this type of assessment is to provide feedback to students and encourage adjustment and correction. The final type of assessment is Authentic. The aim of *Authentic Assessment* is to reproduce a real-world environment for testing and evaluation. It normally involves the student engaging in a task using judgment, innovation, and efficient and effective repertoire of knowledge and skills.

Most courses implement some form of Summative Assessment in its course plan. However, many courses neglect to give adequate feedback through Formative Assessment and do not reproduce real-world evaluations based on Authentic Assessment. The introduction of Active Learning strategies and techniques into the teaching and learning environment allows for the addition of both Formative and Authentic assessment. Each Active Learning activity that is used to transform a course should include a Formative Assessment piece. These activities are normally broken down into smaller steps with clearly defined goals and provide students with examples, clues, prompts, and reminders. They also take advantage of scaffolding to provide students with support as they work to solve problems or complete tasks. The feedback provided through Formative Assessment will support and motivate students as they engage in these activities by enabling them to take ownership of the learning process and evaluate their individual level of accomplishment. In addition, the application of Authentic Assessment will help students relate what is being required in the course to real-life situations. Hence, learning will become more relevant for students. As a best practice, the instructor should incorporate Formative Assessment opportunities throughout course-related activities and include Authentic Assessments when possible.

As previously discussed, students learn best when engaged in their Optimal Challenge Zone. The concept of OCZ is closely related to Vygotsky's Zone of Proximal Development and is directly impacted by scaffolding. In order for learning to take place, new knowledge and skills must be related to existing knowledge and skills. Every student comes to class with a different knowledge base that serves as his or her starting point in the learning process. Furthermore, the lowest common denominator defines the starting point for the entire class. The teacher must assess this starting point in order to apply scaffolding techniques in the learning environment. At a minimum, Barkley recommends that pre-tests be administered to achieve

this purpose.  One technique is to employ Background Knowledge Probes.  According to Barkley, it is almost impossible to pre-test students on every topic presented throughout a course.  However, knowledge probes assess the confidence students have in answering content-related questions, as opposed to addressing fact and figures or demonstrating specific skills.  This allows for a much broader range of topics to be addressed in a shorter amount of time.  Students must still recall knowledge and skills in a fashion that prepares them to link the existing with the new.  As a best practice, instructors should use formative assessments, such as knowledge probes, to connect new knowledge with existing knowledge and facilitate scaffolding in support of learning.

Providing appropriate feedback is a critical component of the Active Learning environment.  Barkley encourages faculty to incorporate rubrics into every learning activity to facilitate timely and relevant feedback.  In turn, this high level of feedback can serve as a form of scaffolding for students as they strive to meet learning objectives tied to specific activities.  Rubrics communicate clearly defined learning objectives and expectations.  In addition, rubrics help students self-assess their work at the formative level prior to undergoing summative forms of assessment.  In some instances, faculty may wish to incorporate student input into the development of rubrics used in the course.  This will promote a sense of community and enhance the learning partnership by giving students a voice in the process.  Barkley addresses this concept in SET 49: Student-Generated Rubrics.

In closing, understanding the purpose and processes of evaluation is an important dimension to consider when transforming a teacher-centric course.  Faculty should employ Formative and Authentic Assessments, as well as Summative Assessments.  Special attention should be given to Formative Assessment, which should permeate all course-related activities.  This form of assessment helps students connect new knowledge with existing knowledge and enables the instructor to determine the starting point for individual students or the class in general.  Finally, rubrics should be used to articulate learning objectives and expectations.  Rubrics provide timely feedback that can serve as a form of scaffolding and also enhance the learning partnership when students are given a voice in their formation.

In this section, we reviewed Barkley's approach for transforming a teacher-centric course into a learning community.  Faculty should remember there is no single plan or strategy to transform a course.  Every course is unique and requires the instructor to develop a plan that addresses the various dimensions and components of his or her course.  The balance of power, function of content, and the purpose and processes of evaluation are dimensions that every faculty member must consider when transforming a course component.  To accomplish the above, the instructor must be willing to create a learning partnership with students.  Each individual must have a voice in the learning process, and contributions to the learning community should be equally valued.  Content should be identified and prioritized by reviewing learning outcomes and objectives, organized in a manner that takes into consideration memory and retention, and

structured to provide multiple pathways to meet the goals of the course.  Furthermore, the instructor should review his or her assessment strategy and ensure that Formative and Authentic Assessments are employed to adequately support students in their learning endeavors.  These should be administered in conjunction with Summative Assessments to devise a holistic assessment strategy that incorporates self-evaluation and feedback.  As previously stated, Barkley's approach does not provide a step-by-step plan to accomplish the above.  The instructor must devise his or her own plan to incorporate engagement techniques into his or her pedagogy.  In the following section, we will review student engagement techniques that Barkley believes will help a faculty member transform her or his course.

## Student Engagement Techniques (SETs)

Active Learning is based upon learning activities that engage students in the teaching and learning process.  Barkley, in part three of her book titled, *Student Engagement Techniques: A Handbook for College Faculty*, provides fifty Student Engagement Techniques (SETs) that have been field tested by college faculty and proven to be effective in engaging students.  Barkley states that, "Each SET promotes active learning by requiring students to participate in activities such as reading, writing, discussing, problem solving, or reflecting.  Each SET can also foster motivation because students find the activities interesting and valuable" (2010, p. 149).  "SETs resemble recipes in that they provide only the directions.  Teachers, like cooks, must provide the actual ingredients" (Barkley, 2010, p. 149).  Barkley encourages instructors to customize SETS as needed and realize that, like recipes, ingredients often determine the success of an activity.  SETs are not guaranteed to stimulate student engagement; however, the SETs presented in the book have a proven track record of success.

Faculty are encouraged to review Part Three of Barkley's book and become familiar with the various SETs that are available as they plan to transform courses and their components.  Barkley provides an overview that includes instructions and the format used to structure each SET.  The format includes characteristics, purpose, directions (including online implementation), examples, variations, advice, and resources.  SETs are organized into two major categories:

- Techniques to Engage Students in Learning Course-Related Knowledge and Skills
- Techniques for Developing Learner Attitudes, Values, and Self-Awareness

Each major category is subdivided into chapters that focus on various attributes and characteristics of learning.  In the remainder of this section, we will review each chapter and spotlight SETs that serve as examples of the activities that are associated with each topic.

## Techniques to Engage Students in Learning Course-Related Knowledge and Skills

This category is divided into five chapters that address the following topics:

- Chapter 12 - Knowledge, Skills, Recall, and Understanding

- Chapter 13 - Analysis and Critical Thinking
- Chapter 14 - Synthesis and Creative Thinking
- Chapter 15 - Problem Solving
- Chapter 16 - Application and Performance

### *Knowledge, Skills, Recall, and Understanding*

One desire of educators is to develop critical, higher-order thinking skills in their students. Before this can be accomplished, students must first gain declarative knowledge, a much lower tier of learning, on which to build. Creating a framework for students to build upon and make application begins with learning the facts, principles, and ideas that constitute the foundational knowledge of the subject they are studying. The SETs in Chapter 12 (pages 155-185) provide structured "opportunities for students to organize, recall, understand, and remember information and core concepts" (Barkley, 2010, p. 155).

Spotlight: Stations (SET 5; Page 170)

Traditional lecture is the norm in many classrooms. As an alternative to lecture, instructors might consider creating exhibits that engage students by requiring them to move around and interact with the learning materials. Exhibits are more appealing for visual and kinesthetic learners and help students learn holistically. Learner interactions may include solving exhibit-posed problems, discussing responses to a prompt, using exhibit information to complete worksheets, and writing group or individual reflective essays. The development of these interactions will be governed by course content and instructional goals. Well-designed exhibits that enable students to actively examine, question, exchange ideas with peers, respond to prompts, and formulate their own thoughts and commentary can help students make connections between theory and practice and understand principles and concepts at a deeper level.

Spotlight: Team Jeopardy (SET 6; Page 174)

The foundational knowledge in many courses requires students to understand and remember basic facts, figures, and vocabulary. Motivating students to put in the effort required to memorize such material can be a daunting task. Team Jeopardy is a fast-paced, energizing way to encourage students to work together as they engage in a review of fact-related information.

### *Analysis and Critical Thinking*

Once foundational knowledge, skills, and understanding have been acquired, students must learn to use it. Many educators assert that information acquires value only when students work with knowledge to build something meaningful (concepts, principles, and relationships). The SETs in Chapter 13 (pages 186-217) provide teachers "ideas for structured activities that require students to break down complex structures into component parts, consider carefully the relationships, relevance, and validity of the parts to each other and to the whole, and to evaluate all of this as a guide to belief and action" (Barkley, 2010, p. 186).

Spotlight: Believing and Doubting (SET 10; Page 195)

The Believing and Doubting activity helps students evaluate the author's points of view, thesis, reasons, and evidences through scholarly reading.  This activity will help develop students' dialogical thinking as they make conscious effort to understand and appreciate the author's perspective and values, while at the same time looking for his or her weaknesses and objections.

Spotlight: Book Club (SET 14; Page 212)

Reading and discussing books, in addition to the textbook, can deepen student knowledge and understanding regarding core ideas and concepts in a specific course or discipline.  Book Clubs are formed around groups of students who select a particular book from an instructor-designated list.  Group discussions address questions from an instructor-developed reading guide, as well as topics and questions presented by students.  Discussions may be held during face-to-face class time, outside of class, or facilitated online.  A formal presentation, using responses to the reading guide as the basis for a synthesis of knowledge learned, will be delivered to the entire class.

Spotlight: Think Again (Pages 50-51)

In this activity, a professional is invited to speak to a class on a specific issue or topic.  After the presentation is made and the speaker is dismissed, ask students to make pro-arguments that support the presenter's viewpoint on the issue or topic.  After each pro-argument, the instructor (or another student) should make a con-argument contradicting the claim or assertion.  Once all arguments have been debated, ask students to "think again" about their arguments based on a broader understanding of opposing sides on the issue or topic.  Close with a group discussion on the importance of making informed decisions based on multiple sources of information, no matter how authoritative any one source may be.  Note: The Think Again activity is defined as SET 24 on page 256.  However, the above activity is a modification of that SET and is discussed on pages 50-51.  We prefer this modified version over the activity described in SET 24.

### *Synthesis and Creative Thinking*

"Synthesis is the process by which pre-existing ideas, influences, or objects are combined in such a manner as to make a new, unified whole" (Barkley, 2010, p. 218).  This process requires a considerable amount of creative thinking on the part of the instructor and his or her students.  Creativity within the college classroom is often manifested through a student's ability to interweave the familiar with the new in unexpected and stimulating ways.  The SETs in Chapter 14 (pages 218-250) are designed to challenge each student's creativity and ability to synthesize by using what he or she knows (or has done) as the basis for generating something new and original.

Spotlight: WebQuests (SET 22; Pages 69, 246)
Students are surrounded by information that is accessible from multiple sources. Yet, too often students based decisions on a single source. Students need to learn to make informed decisions based on multiple sources by sifting through, evaluating, and applying information. WebQuests are complex, inquiry-oriented, highly-scaffolded activities that enable students to learn to use the Web for research in ways that promote analysis and judgment, rather than simply copying or summarizing information. WebQuest activities may be complex and challenging for some faculty to create. WebQuest.Org provides a wealth of information, advice, discussion, design templates, and examples to help instructors get started with this activity. Note: See Appendix A for additional information on WebQuest.Org.

*Problem Solving*
Problems are simply questions or puzzles that exercise the mind. As discussed in the Balance of Power section, one role of the educator is to help students realize that there may be multiple answers to a question and multiple ways to solve a problem. Whether problems are straightforward tasks designed to produce a specified result or complex dilemmas that seem unsolvable, every instructor in every discipline should strive to foster the development of problem-solving skills in students. The SETs in Chapter 15 (page 251) are designed to engage students in learning and practicing problem-solving strategies.

Spotlight: Think-Pair-Share (Page 66)
Many of today's students view the instructor as a source for all the answers. It is important for educators to help students learn to "think" and determine answers for themselves. Think-Pair-Share is a simple, unscheduled activity that instructors can perform on the fly without considerable preparation to promote individualized thinking. Rather than immediately answering a student-posed question, the instructor will provide the class time to consider a student's question. Then, each student discusses his or her potential answer and thought process in deriving the answer with a peer. Afterwards, a class discussion evolves in which the instructor walks through his or her thought process to determine the "right" answer. Think-Pair-Share helps to foster a realization that students are capable of solving problems on their own. Note: SET 25, on page 259, is a more complex, structured version of this strategy.

Spotlight: Proclamations (Set 26; Page 264)
Researching and proposing solutions to local community problems help "deepen understanding of theoretical concepts, demonstrates the relevance and importance of academic work, and fosters a greater sense of social and civic responsibility" (Barkley, 2010, p. 264). Encouraging students to work on problems that are authentic and relevant is refreshingly different from reading about problems and issues in a textbook. Real-life community problems are often complex, resist clear analysis and solutions, and persist in spite of concerted efforts. Recognizing what is within one's control and what is not is a valuable life lesson that cannot be taught through a textbook.

*Application and Performance*

Knowledge and skills gain relevance and value when students can apply them. According to Barkley, employers report that, "students get to the job and know all the facts, but they don't know what to do with them, or how to apply their theoretical knowledge to a real situation" (2010, p. 66). One role of the educator is to help students develop the critical, higher-order thinking skills that bridge theory and practice. The SETs in Chapter 16 (pages 275-299) are designed to help students connect what they are learning in the classroom "to their personal lives or the real world, to carry out an action or accomplish a task they otherwise know only theoretically, or to demonstrate what they know and how well they can transfer and apply what they know in a new or different context" (Barkley, 2010, p. 275).

Spotlight: Contemporary Issues Journal (SET 29; Page 276)

"Students are more motivated to learn things that they believe are worth learning" (Barkley, 2010, p. 276). Connections made between course materials and recent events deepen the student's understanding, value, and appreciation of course-related concepts by establishing relevance to the real world. In this activity, students keep a journal of discovered connections between course material and recent developments discussed in local and world media forums.

Spotlight: Insights-Resources-Applications (IRAs) (SET 32; Page 287)

After reading an article, viewing a video, participating in a discussion, or at the conclusion of a unit of study, students evaluate their new perceptions or understandings (Insights), explore additional resources that amplify the theme or topic (Resources), and relate it to their personal experience through a written assignment (Application). IRAs challenge students to identify and reflect upon what they have learned, connect the learning to their personal experience, and search out additional sources that deepen their knowledge or understanding of the topic.

**Techniques for Developing Learner Attitudes, Values, and Self-Awareness**

This category is divided into three chapters that address the following topics:

- Chapter 17 – Attitudes and Values
- Chapter 18 – Self-Awareness as Learners
- Chapter 19 – Learning and Study Skills

*Attitudes and Values*

Students who care about life, about themselves, and about what the instructor is teaching enrich the atmosphere of the cognitive-based learning community. Understanding and recalling information, applying knowledge to solve problems, and thinking critically has a profound impact when the student is conscious of his or her own experiences, beliefs, biases, values, and attitudes regarding the topic being studied. The SETs in Chapter 17 (pages 300-322) provide learning activities that empower students to build on their strengths and identify areas

for improvement as they gain a greater understanding of their own feelings, opinions, and principles, as well as those of others.

Spotlight: Dyadic Interviews (SET 36; Page 305)

The use of "questions that draw out student experiences and knowledge from outside of class can help engage students by validating their existing expertise and by bridging the gap between the academic and the real world" (Barkley, 2010, p. 305).  In this SET, students interview each other, asking questions that address individual values, attitudes, beliefs, and prior experience as it relates to course content and learning goals.  The interview process allows students to formulate personal opinions, collect their thoughts, and rehearse their responses in a low-risk environment before sharing with the entire class or larger group.

Spotlight: Ethical Dilemmas (SET 38; Page 313)

At some point in life, everyone will be presented with ethics-based choices to consider and/or act upon.  Instructors should help students to rely on their values and reasoning skills to evaluate real-world situations, consider consequences, and select an appropriate course of action.  This SET provides students with a forum in a safe, non-threatening environment to explore ethics-based situations they may face in the future.

### *Self-Awareness as Learners*

Students who reflect on their learning have a greater understanding of what and how they learn and are able to develop strategies to increase the effectiveness of their learning; thus, making them better learners.  Metacognitive strategies require activity on the part of learners to actively monitor and control their own learning processes.  Students who develop these skills are better able to exert control over the quality of their learning.  After all, who is in a better position than the student to determine his or her optimal level of challenge?  The SETs in Chapter 18 (pages 323-339) provide activities to help students become more aware of themselves as learners and encourage them to take a more active role in the learning process by becoming more mindful of their own learning preferences, abilities, and styles.

Spotlight: Learning Logs/Journals (SET 41; Page 324)

"Learning Logs provide a formal medium for students to explore their individual learning strategies and styles" (Barkley, 2010, p. 324).  Reflecting on and writing about one's own learning can help him or her see patterns and preferences, diagnose learning strengths and weaknesses, generate solutions to learning-related problems, and provide insights into his or her optimal challenge zone.

Spotlight: Go for the Goal (SET 43; Page 332)

Goal setting helps students to become conscious of what they hope to accomplish and encourages them to accept responsibility for their own learning.  In this activity, students will

create a framework against which to measure their progress by identifying what they want to learn at the beginning of the academic term, unit of study, or specific learning activity.

### *Learning and Study Skills*

Students who excel in learning have developed a variety of skills to help make learning more efficient and effective. These skills include how to plan, take notes, find information, prepare for exams, contribute to class discussions, and participate in group projects. The SETs in Chapter 19 (pages 340-361) offer ideas for activities in which students focus on learning or improving a particular learning or study skill.

<u>Spotlight: Student-Generated Rubrics (SET 49; Page 354)</u>

Engaging in the process of developing assessment rubrics will help students to identify the features of excellent work and internalize the meaning of high standards. It also serves to motivate students as they exercise greater control over the outcome. In this activity, students are provided with three examples of outstanding course work to analyze and determine common characteristics. An explicit set of criteria and grading standards are developed based on the most identified traits and includes a scoring scale to be used on future assignment.

In this section, we reviewed student engagement techniques that Barkley has compiled to promote engaged learning and transform the classroom into a community of learners. In her book, Barkley categorizes SETs by function and purpose. This guide examines each category and spotlights one or more SETs that serve as examples of the kinds of activities that are included in each category. Faculty are encouraged to read Barkley's book and become familiar with the various techniques that are presented. Developing a familiarity with these techniques will serve to support the instructor as he or she works to transform his or her course with newly acquired engagement activities.

## Faculty Resources for Engaged Learning

The University recognizes that the successful integration of student engagement techniques into the teaching and learning environment is dependent upon its faculty and the resources made available to support their efforts.  The purpose of this section is to provide faculty with documentation and support as they strive to implement the tenets found in the Engaged Learning Initiative.  In this section, we will provide faulty guidance in using Canvas's Portfolio System and promoting reflecting writing in support of teaching strategies.  We will also discuss faculty development opportunities on the topic of engaged learning.

## Using Canvas's Portfolio System

Freed-Hardeman University uses Canvas® as its learning management system (LMS) to deliver online learning tools and services to both traditional and distance learning students.  In addition, Canvas offers an electronic portfolio system that is integrated into Canvas's LMS.  This system provides students access to a portfolio that resides in a familiar environment and may be used to develop ELI portfolios that integrate artifacts and reflective writings from the student's academic experience.  Freed-Hardeman activated Canvas's Portfolio system in the summer of 2015 in support of the Engaged Learning Initiative.  In the remainder of this section, we will examine the use of student portfolios in education, the design and purpose of Freed-Hardeman's portfolio template, and workflows that integrate the use of portfolios into coursework.

### What is a Portfolio?

The term, *Portfolio* is used to describe a purposeful collection of artifacts that represent an investment of time and energy toward achieving an end result (L. Paulson, P. Paulson, & Meyer, 2009).  This is a general term that describes various applications of the concept in numerous contexts.  In regards to academics, practitioners normally differentiate between student and teaching portfolios.  For the purpose of our discussion, we will focus on student portfolios and their impact on the teaching and learning process.

Leon Paulson, Pearl Paulson, and Carol Meyer, in their article titled, "What Makes a Portfolio a Portfolio," define a student portfolio as "a purposeful collection of student work that exhibits the student's efforts, progress, and achievements in one or more areas" (2009, p. 60).  The website titled, *The Glossary of Education Reform*, defines a student portfolio as "a compilation of student work assembled for the purpose of (1) evaluating coursework quality and academic achievement, (2) creating a lasting archive of academic work products, and (3) determining whether students have met learning standards or academic requirements for courses, grade level promotion, and graduation" (2015).  In addition to the above, student portfolios facilitate reflection, self-assessment, and goal-setting.  These mental activities enable students to not only focus on what was learned, but also on the learning process itself (Mueller, 2015).  Hence, students develop the metacognitive skills that are discussed in the section titled, "Using Reflective Writing to Enhance Student Engagement."  These attributes suggest that student

portfolios are engaging pedagogical tools that facilitate a deeper level of learning and a better understanding of self.

### *Types of Portfolios*
Jon Mueller, on his website, *Authentic Assessment Toolbox*, identifies the following types of student portfolios: Growth Portfolios, Showcase Portfolios, and Evaluation Portfolios (2015). In this section, we will examine each of the types mentioned above.

Growth Portfolios emphasize the process of learning and show growth and change over time. They are used to develop process skills, such as self-assessment and goal setting. They also identify strengths and weaknesses and track the development of one or more academic products or performances. The following are the types of artifacts that might be included:

- early and later pieces of work, tests, and scores;
- rough and final drafts;
- goal-setting outlines;
- teacher or peer evaluation; and
- reflections on growth, progress towards goals, strengths and weaknesses, and teacher or peer evaluation.

Showcase Portfolios emphasize the products of learning, such as end-of-year or end-of-semester accomplishments. They are used to prepare a sample of best work for employment or college admission. In addition, Showcase Portfolios enable students to express themselves through the selection of their favorite, best, or most important work. This type of portfolio communicates the student's current aptitudes to future teachers and employers. The following are the types of artifacts that might be included:

- samples of best work;
- final tests or scores;
- awards or other recognition;
- teacher or peer reviews; and
- reflections on best works, the achievement process, and reviews.

Evaluation Portfolios document achievement for grading purposes, as well as progress towards standards. This type of assessment can aid in student placement, etc. The following are the types of artifacts that might be included:

- samples of representative work in each subject, unit, or topic;
- samples of work that document levels of achievement based on goals, standards, or objectives;

- rubrics used for evaluation purposes;
- lists of applicable goals and standards;
- teacher reflections on work and attainment of goals, standards, and objectives; and
- student reflections on work and attainment of goals, standards, and objectives.

It should be noted that portfolios could address more than one category.  For instance, a Showcase Portfolio might also be evaluated.  The University's vision for portfolio usage, as expressed by the Engaged Learning Initiative, includes each category discussed above.  In addition, this vision is reflected in the design of the ELI Portfolio Example, which is reviewed later in the guide.

### *Portfolio Design and Integration*
Instructors may integrate portfolios into their pedagogy by developing portfolio assignments.  According to Mueller, instructors should ask the following questions to develop successful portfolio assignments:

1. What is the purpose of the portfolio?
2. Who is the audience?
3. What samples of student work will be included?
4. What processes (content selection, reflection, conferencing) will be engaged during the development process?
5. How will time and materials be managed in the portfolio?
6. How and when will the portfolio be shared with others?
7. Who will perform an evaluation and when? (2015)

In the remainder of this section, we will examine each question.

Purpose
Mueller asserts that the purpose of a portfolio is to tell a story (2015).  The purpose for the story must be well defined by the instructor and articulated to the students.  More importantly, the story must be relevant to the student and his or her peers.  Else, the time and energy invested in developing the portfolio will be viewed as "busy work" and will not have the desired impact on the student's development (Mueller, 2015).

Audience
Mueller also states that selecting a relevant audience is just as critical as defining its purpose (2015).  The audience (teacher, potential employer, peers, etc.) should have a vested interest in the purpose of the portfolio and the individual who created it.  The portfolio should be designed to accommodate the knowledge, experience, and expectations of the audience.  For example, a cover letter might be a content item that is expected by a possible employer.  In

addition, the design and layout of the portfolio might take into consideration academic or industry norms, as well as the experience level of the viewer's technical skills (Mueller, 2015).

## Content

The purpose of the portfolio and its audience will greatly impact the type of content that will be placed in the portfolio. Again, content must be relevant to the purpose and audience and may take the form of typed narrative and artifacts. This includes essays, homework, letters, projects, reflections, audios, videos, images, web links, etc. Any content that can be saved in a digital format may be stored as a portfolio artifact (Mueller, 2015).

## Processes

Portfolios enable the instructor to focus the student on the processes of learning. Mueller states that, "Too often in education we emphasize the product students create or the outcomes they achieve, but we do not give sufficient attention to the processes required to create those products and outcomes" (2015). Focusing on the process, as well as the product, empowers the student to self-diagnosis, self-correct, and determine when the desired outcome has been reached. Most importantly, the instructor should prompt students to consider the process of content selection, reflection, and conferencing with others (Mueller, 2015).

## Time and Materials Management

The instructor should develop a framework within the assignment that guides the student in the management of time and materials. The assignment should articulate the amount and type of content that will be required. In addition, it should indicate where and how content would be stored and presented to the viewer. These types of constraints will help the student to manage the development of the portfolio (Mueller, 2015).

## Communication

Portfolios, by their very nature, share and communicate content with others. The portfolio's "story" is composed of the content that is shared and the manner in which it is communicated. How content is organized and presented greatly determines the success of the communication process. Hence, the assignment should take into consideration the portfolio's audience. To best ensure success, organize the content in such a way that it clearly articulates the story in a manner that is expected by the audience. For example, a portfolio viewed by a teacher for the purpose of grading may employ an organizational scheme that is different from a peer-reviewed portfolio.

## Evaluation

If the portfolio assignment includes an evaluation of the portfolio and its content, the instructor should determine by whom, when, and how the portfolio will be evaluated. This includes the evaluation criteria (preferably in the form of a rubric) and whether or not a grade will be administered.

### *Portfolio Assessment*

Robert Lippert, in his journal article titled, "Student Portfolios 101," states that, "[portfolios] assist instructors in determining the progress of a student's performance" (2004, p. 23).  Hope Gibbs states in another article that, "many educators and researchers feel that portfolio assessment is a superior and more accurate indicator of student progress than the more conventional types of assessment" (2004, p. 27).  In addition, Gibbs asserts that, "a well-kept portfolio mirrors the comprehension and performance of a student" (2004, p. 27).  Building upon this assertion, Leon Paulson, Pearl Paulson, and Carol Meyer believe that "portfolios permit instruction and assessment to be woven together in a way that more traditional approaches do not" (2009, p. 60).  The development of the portfolio, including its content, organization, and reflections, paint a holistic picture of the student's knowledge and understanding of the story that is being told.  It is for this reason that many educators argue that portfolios function equally well as assessment tools.  Portfolios provide faculty the opportunity to observe students taking risks, developing solutions for problems, and learning to make judgments about their individual performances.  They also provide students the ability to engage in self-assessment.  In essence, the teacher, student, and audience are participants in the assessment process (Paulson et al., 2009).

To that end, faculty members are encouraged to consider portfolio assignments as assessment tools.  The assessment of a portfolio may or may not include a grade.  However, assessment criteria should be articulated in a clear and concise manner.  It is highly recommended that rubrics be used in the evaluation process due to the extent that personal judgment is employed.  The evaluation criteria may examine content, organization, and the metacognitive elements contained within the portfolio.  In light of the above, a gradable portfolio assignment should

- identify the individuals who will be evaluating the portfolio;
- identify the portfolio elements to be assessed (content, organization, reflections);
- define the criteria for evaluation (preferably in the form of a rubric);
- define the grading schema, if applicable; and
- incorporate teacher and student reflections regarding the assessment process.

At the beginning of this section, we asked the question, "What is a Portfolio?" Leon Paulson, Pearl Paulson, and Carol Meyer offer the following response:

> *A portfolio is a portfolio when it provides a complex and comprehensive view of student performance in context.  It is a portfolio when the student is a participant in, rather than the object of, assessment.  Above all, a portfolio is a portfolio when it provides a forum that encourages students to develop the abilities needed to become independent, self-directed learners. (2009, p. 63)*

# Best Practices for Student Engagement
## A Faculty Guide for the Engaged Learning Initiative

### The FHU ELI Portfolio Example

The University has developed a portfolio example for the Engaged Learning Initiative that provides students with a standardized repository of portfolio-related work. Students may use this example when creating and building their portfolios during their tenure at Freed-Hardeman. The example is designed to accommodate various activities, including non-ELI activities. Hence, a student's portfolio may be used to document and track all his or her experiences at FHU. In this section, we will examine the portfolio template, including its organizational scheme and best practices for building and maintaining portfolios.

In Canvas, portfolios may be accessed through the user's *Account* section. (See figure 4).
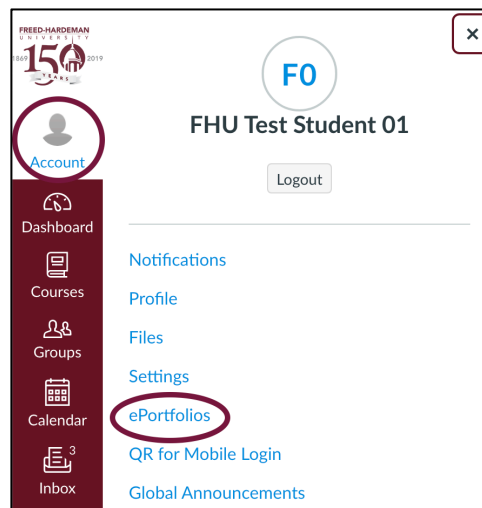


**Figure 4**

Users may create and maintain multiple portfolios within Canvas. Each portfolio is listed on the ePortfolio page as follows (See figure 5):
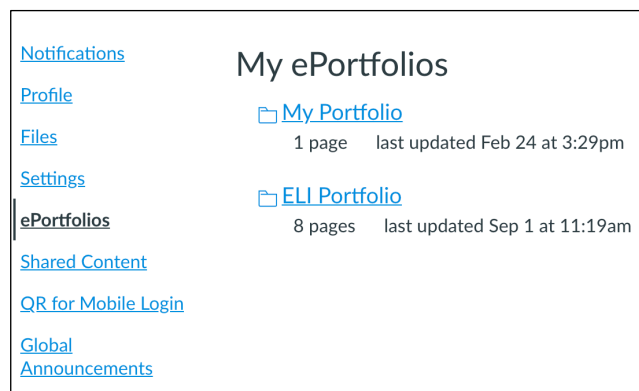


**Figure 5**

# Best Practices for Student Engagement
## A Faculty Guide for the Engaged Learning Initiative

The Student Information page should serve as the home page of the portfolio. The components of this page are identified in Figure 6.
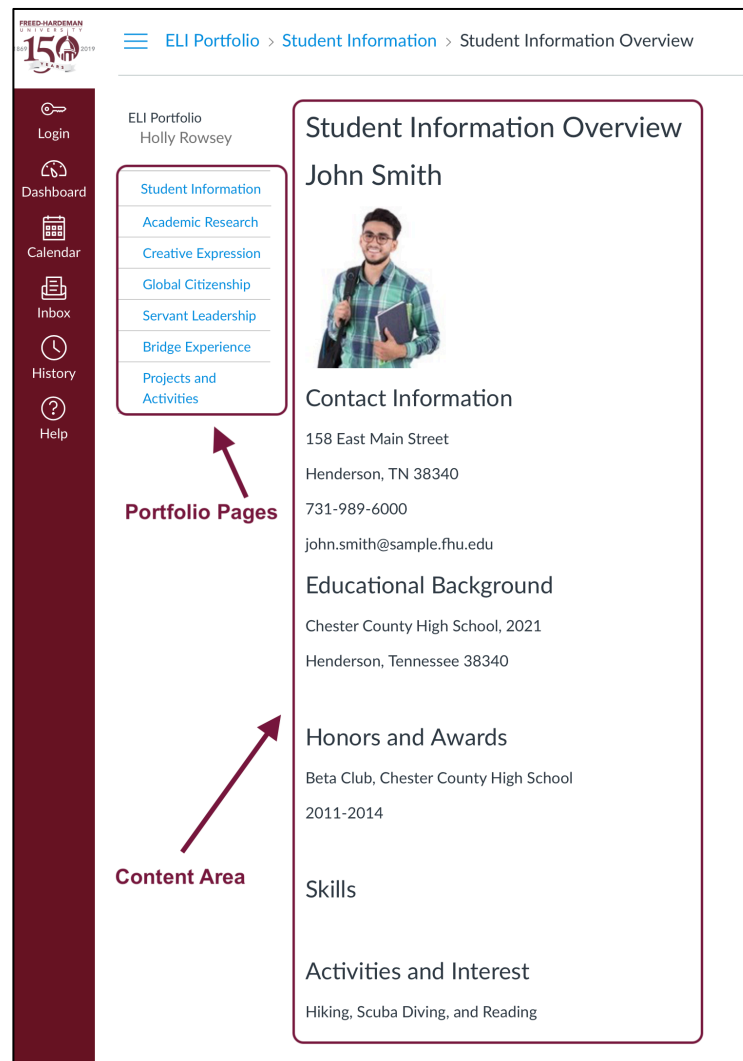


**Figure 6**

Every Canvas portfolio is composed of the following components:

- Portfolio Pages
- Content Area

Portfolio content may be divided and organized into pages. Pages are listed on the left-hand side of the portfolio window. Each name serves as a page link that may be clicked and viewed by the user. The FHU ELI Portfolio example includes a Student Information page and a page for each engagement category defined by the Initiative. Students are encouraged to create a page

for each engagement category and name these pages according.  Students may create additional pages, if required.

The content area of a page is used to present content to the viewer.  The content area should contain an overview section and sections for each activity the student has completed within the category.  Additionally, students are encouraged to add additional sections to category pages in order to document and track portfolio assignments.

The following is an explanation of each category page that is native to the FHU ELI portfolio exmaple:

Student Information Page
The Student Information page serves as the home page of the portfolio and identifies the student to the viewer.  The page is divided into the following sections:

- Contact Information
- Education Background
- Honors and Awards
- Skills
- Activities and Interest

Students are expected to complete the above when they create their portfolios.

Academic Research Page
The Academic Research page may be used to document and track student engagement in the area of research and discovery.  The page will contain an Overview section and a section for each engaged learning course, pre-approved activity, or special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.  See the section titled, "The FHU Engaged Learning Initiative" in this Guide for a detailed explanation of this engagement category.

Creative Expression Page
The Creative Expression page may be used to document and track the process of creativity.  The page will contain an Overview section and a section for each engaged learning course, pre-approved activity, or special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.  See the section titled, "The FHU Engaged Learning Initiative" in this Guide for a detailed explanation of this engagement category.

Global Citizenship Page

The Global Citizenship page may be used to document and track student engagement with other cultures.  The page will contain an Overview section and a section for each engaged learning course, pre-approved activity, or special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.  See the section titled, "The FHU Engaged Learning Initiative" in this Guide for a detailed explanation of this engagement category.

Servant Leadership Page

The Servant Leadership page may be used to document and track student engagement as they strive to become servant-leaders.  The page will contain an Overview section and a section for each engaged learning course, pre-approved activity, or special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.  See the section titled, "The FHU Engaged Learning Initiative" in this Guide for a detailed explanation of this engagement category.

Bridge Experience Page

The Bridge Experience page may be used to document and track student engagement in professional development opportunities.  The page will contain an Overview section and a section for each engaged learning course, pre-approved activity, or special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.  See the section titled, "The FHU Engaged Learning Initiative" in this Guide for a detailed explanation of this engagement category.

Projects and Activities

The Projects and Activities page may be used to document and track student engagement in areas outside of the engagement categories defined by the Initiative.  The page will contain an Overview section and a section for each special project engaged in by students.  Students are expected to populate the Overview section with text provided by the University when they create their portfolios.

The instructor should identify each engagement category that he or she develops or advises.  In turn, students will create sections on the appropriate pages based on direction from the instructor.

# Best Practices for Student Engagement
## A Faculty Guide for the Engaged Learning Initiative

Each engagement category page should contain one or more generic sections that may be renamed by the student for use with portfolio assignments (See figure 7).
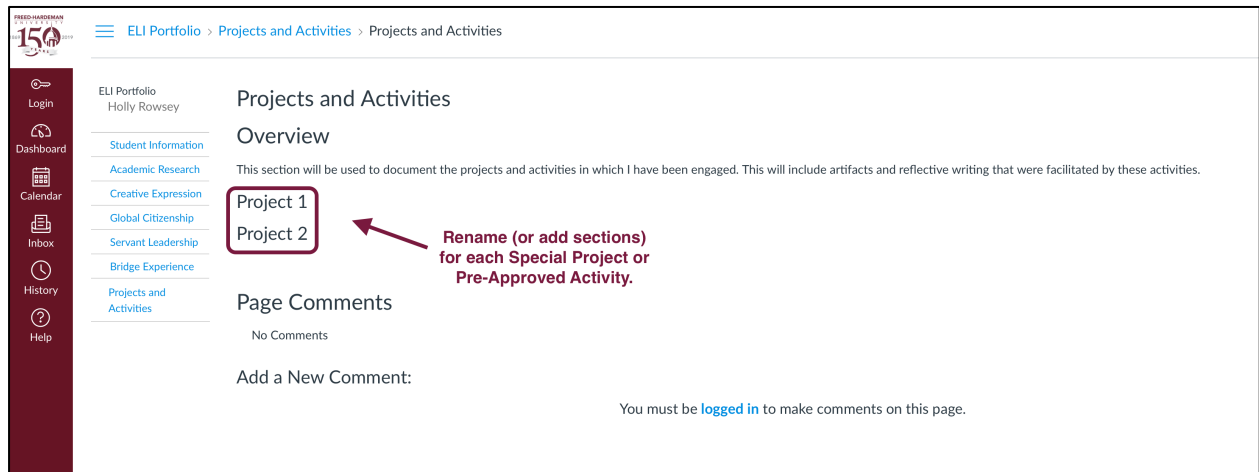


**Figure 7**

Figure 8 shows an example of an Academic Research page that includes a special project developed by a student.
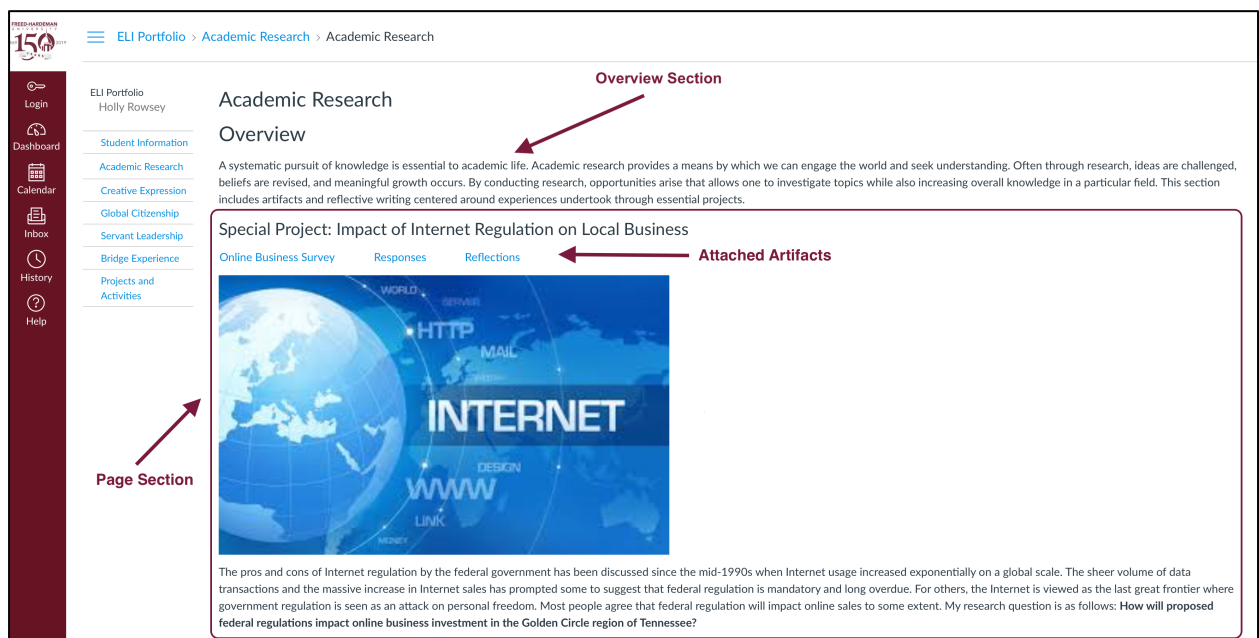


**Figure 8**

In this example, we see that the student created a new page section on the Academic Research page to serve as a repository for content related to his or her special project. He or she

provided a description of the project, as well as artifacts that are attached as files.  Please note that multiple sections may be created on a category page for various courses, activities, and projects that are related by engagement category.

Reflective writings may reside in various forms in a student's portfolio.  In figure 8, the example student engaged in reflection in an external document that was later attached as an artifact to the project.  The student might also have incorporated reflective writings into the text of a page section.  As a best practice, it is recommended that students create page sections for reflective writings or use external documents and attach appropriately.  The instructor and student should select the appropriate method with the understanding that viewers will place greater emphasis on the reflection piece if included in the text of a page section.

Students are encouraged to create new portfolio pages for portfolio assignments associated with non-ELI courses.  In figure 9, the example student created a portfolio page for his University Foundations course.
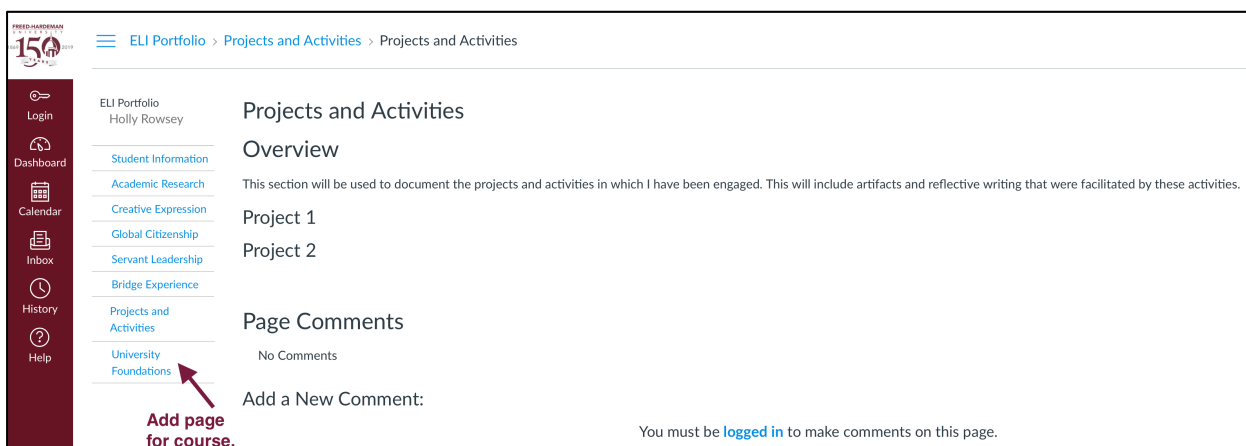


**Figure 9**

In this example, the instructor integrated portfolio assignments into his or her course plan.  As seen in figure 10, the student created a portfolio page for the course, added an Overview section to the page that incorporated the course's catalog description, and created additional sections for each assignment.

# Best Practices for Student Engagement
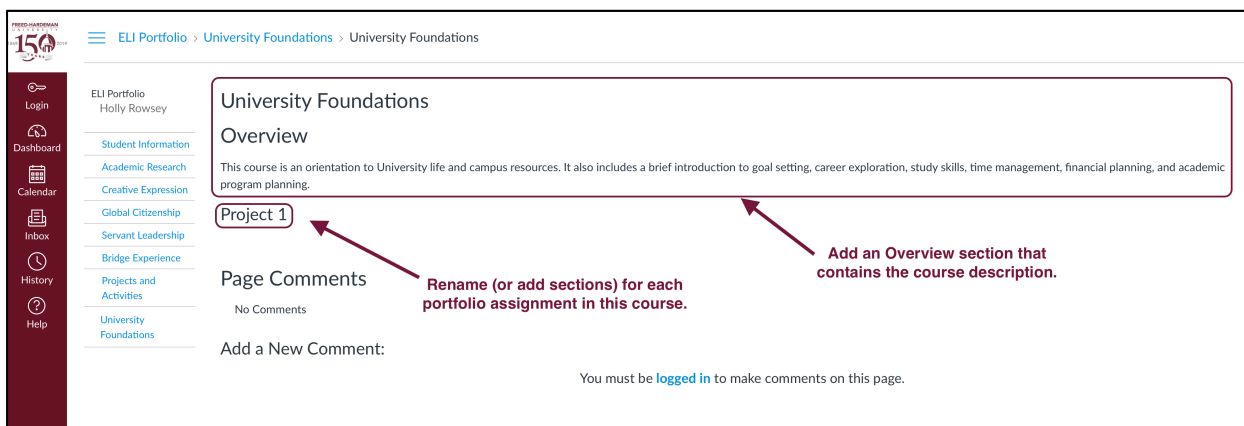## A Faculty Guide for the Engaged Learning Initiative



**Figure 10**

We recommend the above approach as a best practice to incorporate non-ELI activities into a student's portfolio.  This will allow the student to determine the content that best articulates the story that is being told.

## Workflows for Integrating Portfolios into Your Pedagogy

Portfolio assignments can be easily incorporated into your pedagogy.  As a best practice, we encourage faculty to use the Assignment tool in Canvas to administer portfolio assignments that are associated with courses.  We highly recommend using the Assignment tool for its ease-of-use and seamless integration with the Grade Center in Canvas.  In the case of special projects that are not associated with courses, instructors should provide students with instructions for sharing their portfolios with the instructor or advisor for assessment.  In this section, we will examine each method and their associated workflows.

The Assignment Tool in Canvas is a collaborative tool that allows the faculty member to

- deliver assignment-related instructions to his or her students;
- receive work in the form of files, documents, etc. from students; and
- post grades in the Grade Center and provide other forms of feedback.

In addition to traditional assignments that incorporate files and documents, the Assignment tool works equally well with portfolio assignments.  The workflow for administering a portfolio assignment is as follows:

1. The instructor will create the portfolio assignment through the use of the Assignment tool in Canvas.
2. Students will access the Canvas assignment to review the instructions for the assignment and proceed in performing the specified work.  This work may be placed in a new portfolio or in an existing portfolio.  As a best practice, we encourage students to consolidate all of their work into a single portfolio.

3. Once the student is finished with the assignment, he or she need to make the portfolio public to obtain a URL to submit for the assignment. This is accomplished by clicking *ePortfolio Settings* and then clicking *Make Public* as seen in Figure 11. The student will then copy the URL from his or her web browser address bar. Once the URL is obtained, the student will submit the assignment by accessing the assignment in Canvas and in then pasting his or her portfolio URL into the Assignment Website URL section as seen in Figure 12.

4. The instructor will then access the Grade Center in Canvas to view the student's portfolio, assess his or her work, and assign a grade.
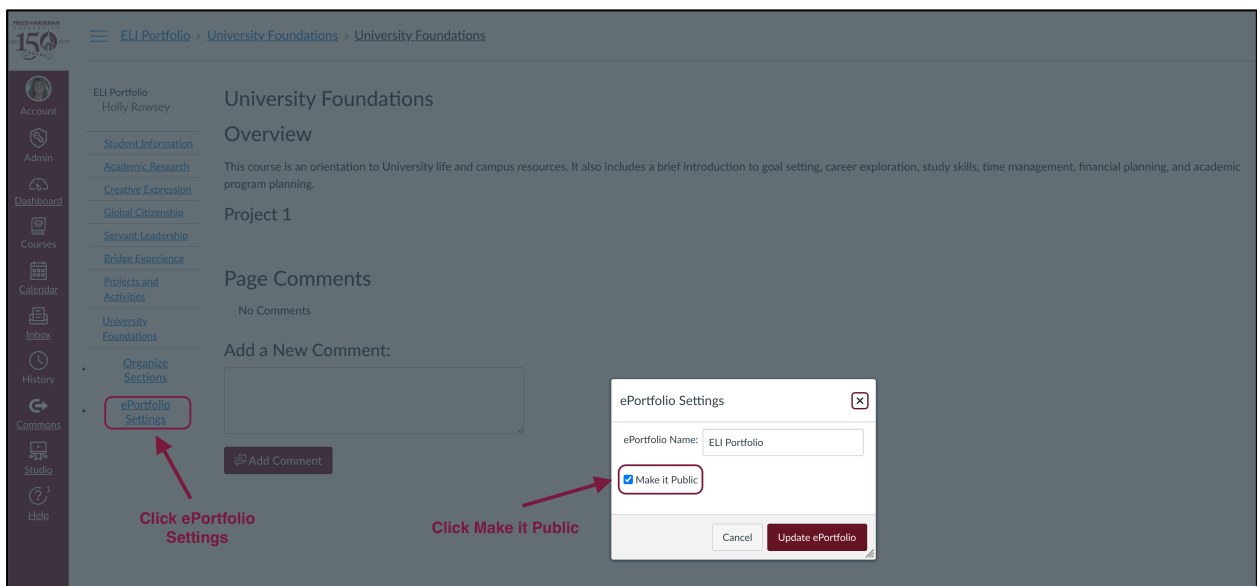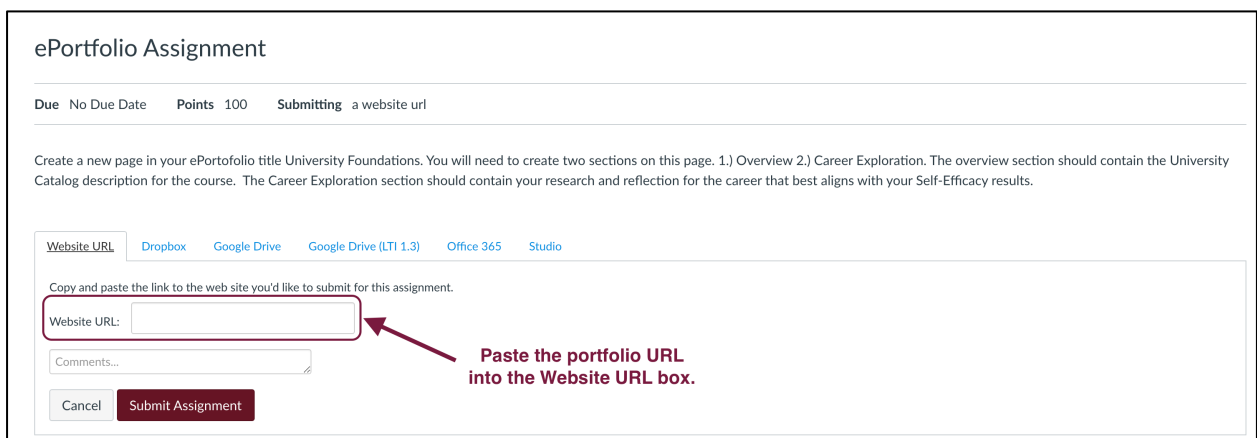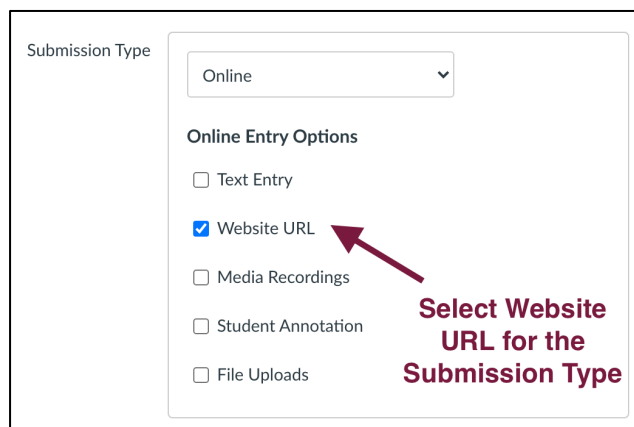


**Figure 11**



**Figure 12**

Figure 13 shows the Submission Details section of the Assignment Tool in Canvas where the instructor will indicate that the assignment will require a portfolio URL submission.



**Figure 13**

Again, we recommend that all work be consolidated into a single portfolio unless the criteria and/or purpose of the project or assignment dictate otherwise.

As stated previously, the Assignment tool in Canvas cannot be used for special projects that are not associated with a specific course.  If this is the case, the instructor will need to ask the student to share his or her portfolio with him or her for assessment purposes.  This is accomplished by providing the portfolio URL to the instructor. Individuals with the portfolio URL may then access the portfolio by accessing the provided URL.

Please note that individuals may leave comments on a portfolio, but only the owner of the portfolio will be able to view the comments.

## Closing Thoughts on Portfolios

Student portfolios are engaging pedagogical tools that enable students to compile their work in a central repository to demonstrate growth, achieve self-promotion, and permit evaluation. Portfolios facilitate reflection, self-assessment, and goal-setting.  As stated previously, these mental activities enable students to not only focus on what was learned, but also focus on the learning process itself (Mueller, 2015).  Canvas's portfolio system provides students access to a portfolio tool that resides in a familiar environment and may be used to develop ELI portfolios that integrate artifacts and reflective writings from the student's academic experience.  Faculty may integrate the use of student portfolios into their pedagogy through the Assignment Tool in Canvas or by sharing portfolios between individuals.  The integration of portfolios will help to create an engaging, participatory environment that enhances the teaching and learning process.

## Using Reflective Writing to Enhance Student Engagement

Critical reflection is considered by many to be an essential component of the learning process. Mezirow believed that students must reflect upon content, process, and premise in order for true learning to take place (Mezirow, 1991). One pedagogical tool that can facilitate critical reflection on the part of students is reflective writing. Reflective writing promotes academic achievement, self-assessment, and lifelong learning. In this section, we will review the work of Dr. Margaret Payne as she addresses the process of critical reflection and reflective writing, as well as strategies to promote these activities in the learning environment.

## The Concept of Metacognition

To begin our discussion on reflective writing, we will introduce the concept of *Metacognition*. The simplest definition of Metacognition is "thinking about your thinking." Shawn Taylor, in a journal article titled, "Better Learning Through Better Thinking," articulates a more complex definition that is widely cited within educational literature. His definition asserts that "Metacognition is an appreciation of what one already knows, together with a correct apprehension of the learning task and what knowledge and skills it requires, combined with the ability to make correct inferences about how to apply one's strategic knowledge to a particular situation and to do so efficiently and reliably" (Taylor, 1999, p. 34). In essence, Metacognition is being aware of what you know and don't know, understanding what you will need to know for a certain task, and having an idea of how to use your current skills to learn what you don't know.

Reflective writing (and thinking) has always been an essential part of the learning process, but in today's multitasking, overscheduled educational and social landscape, it is even more important for each student to "hit the pause button" in order to reflect on what he or she is learning, why it is important, and how he or she might use it. It is of utmost importance for faculty and mentors to emphasize the need for reflective time in a student's schedule. In order for students to learn how to write effective reflective pieces, instructors must be willing to invest adequate time and attention to reflective writing activities. Although the time required for a student to learn how to write reflectively and gain an appreciation for the outcome is significant, the benefits greatly outweigh the effort required to master the skill. Despite the time that this practice requires, a student will learn that it allows him or her to document the learning process. In turn, it enables him or her to become a more responsible, active, and invested learner.

Reflective writing forces students to engage in Metacognition, a skill that brings the thinking and learning process to the conscious level. Students are generally accustomed to quick reflection in social media, but they are not as accustomed to engaging in academic reflection. Just as formal academic writing requires explicit statements of purpose through thesis statements, topic sentences, and abstracts, academic reflection requires "a conscious and stated purpose." This requirement, according to Mary Ryan in her journal article titled,

"Improving Reflective Writing in Higher Education: A Social Semiotic Perspective," distinguishes academic reflection from personal reflection (2011, p. 101).  On a practical level, this means that we should routinely encourage students to assess where they are as learners.  Asking students to write on why a body of information, a skill set, or a theoretical approach is practical, workable, or significant in the field can go a long way in engaging students through Active Learning.

## Types of Reflective Writing Assignments

As we begin the examination of the reflective writing process, it is useful to know that there are at least two types of reflective writing assignments: reflections on activities performed by the individual and reflections on activities performed by others.  These might be utilized on different occasions based on the instructor's intended goals; however, the field of study normally determines their appropriate usage.  In skills-based courses or activities, instructors might choose to require students to reflect on an activity performed by the student with the goal of determining the most effective strategy for future practice in academic or professional work.  In information-based courses, theory-based courses, and/or courses in the arts and humanities, assignments more often focus on observations (of readings, videos, presentations, works of arts, etc.) of performances of someone other than the student with the goal of gaining understanding, appreciation, and theoretical underpinnings of the type of work observed.  It is important for the instructor to differentiate between these types of assignments as he or she integrates reflective writing assignments into his or her coursework to maximize their impact.

## Techniques for Fostering Reflective Writing

Faculty can foster reflective writing in several ways once the type of assignment is determined.  These involve modeling, providing adequate prompts and explanations of expectations, and assigning reflective writing assignments.  This approach is especially beneficial for students who are new to the process.  Modeling might include providing questions and sample responses to the type of reflective writing assignments required in a particular course.  Examples might be written by the faculty member, but ideally by a former student who has written successfully and who has given permission to use his or her work as an example.  It is also best to provide a sample similar to but not the same as any of those assigned in the course.  Modeling also requires feedback from the instructor.  A rubric or marginal comments can be quite helpful for students to improve upon their work.  These comments must be returned to the student relatively soon after the initial assignment and a new assignment should be required soon after the feedback is given.

Modeling instructions at the beginning of the semester should include expectations of content and style and might observe that reflective writing might include the following:

- an objective description and observation of the performance or event;

- subjective interpretation, feelings, and musings regarding the performance or event (This will depend on the discipline);
- objective assessment, including the application of theory, values, and/or principles applied to the performance or event;
- a mixture of informal language (first-person observations) and formal language (vocabulary and conventions of the field of study) should be included; and
- conscious decisions about what sort of information and details to include and which to leave out.

As the semester progresses, the instructor may gradually turn over the process to students as they develop the necessary cognitive skills to engage in reflective writing.

In order for students to learn how to think and write effectively, they must do it frequently, but this frequency will be inadequate if students do not understand how to write reflectively or why it is important. An ideal path to student mastery is for instructors of entry-level courses in the major and in general education courses to provide very specific prompts and questions for students to address in reflective writing assignments. Obviously, the field of study and the content of the course will greatly determine the types of questions and prompts, but instructors might consider the following principles to develop reflective writing assignments:

1. Reflective writing should require students to integrate their experiences, their expressions about their own thoughts and observations, and their knowledge of a particular field of study.
2. Reflective writing should force students to look for connections between what they have learned and what they are doing.
3. An instructor might use the following generic model for a reflective writing assignment or activity:

    a. What did I do (activity)/see (video, performance, observation)/hear (podcast, musical performance)/read (written assignment from textbook, novel, short story, article, your own writing or your classmates' writing)?
    b. How was it done/performed/written?
    c. Why was it done/performed/written that way?
    d. What does it mean that it was done/performed/written that way?
    e. Was this done/performed/written in a good (useful, appropriate, effective, etc.) way?
    f. How should I do it differently next time? Or, how can I use or apply this (to my major, to my course, to the theories and concepts from class, to my life/career?)

Note: Faculty should include different components of the above list for different courses and fields of study.  Making the decision about what to include and how to approach the writing task is an important part of reflective writing.

Ideally, students in upper-level courses in the major will be able to develop their own prompts or decide on their own what should be included in their reflective writing piece.  It is hoped that through practice, students will develop the necessary cognitive skills to engage in critical reflection, and those skills will build upon the modeling, prompts, and questions presented by the instructor.  This will enable students to mature in their thinking process and engage in reflection, regardless of whether specific prompts, directions, or questions are provided.

### Reflections on Reflective Writing
Reflective writing is an essential component of the learning process and is addressed in the final step of FHU's engaged learning methodology.  This method of writing forces students to engage in Metacognition and reflect on what they are learning, why it is important, and how they might use it.  As faculty integrate reflective writing into their coursework, they should differentiate between a student's reflection on self and his or her reflection on the performance of others.  This will impact the modeling, prompts, and questions used to facilitate the reflective writing process.  The goal is to stimulate reflection on a particular topic, while also developing the cognitive skills to enable students to engage in future critical reflection without prompts from outside sources.  Hence, critical reflection becomes a lifelong learning tool.  For more information on this topic, please see Appendix A for a list of additional resources on reflective writing.

## Faculty Development Opportunities for Engaged Learning
The Center for Instructional Innovation will offer faculty development sessions that are designed to help faculty integrate student engagement techniques into their pedagogy and address topics such as reflective writing and best practices for the development of effective student portfolios.  These sessions will include workshops and roundtable discussions that are designed to further support faculty as they refine their approach to engaged learning.  Please see Appendix B for a list of sessions that are currently offered each semester.

## Conclusion

The purpose of this guide is to serve as a resource for Freed-Hardeman faculty who are actively pursuing student engagement, both inside and outside the classroom.  It introduces FHU's Engaged Learning Initiative to the reader, establishes a framework for the delivery of engagement activities, and identifies a set of teaching and learning strategies to engage students.  It also provides instruction on the use of certain technological tools and pedagogical techniques to support engagement activities.

The goal of the Initiative is to motivate students to become actively involved in the learning process in order to facilitate a higher level of learning.  To accomplish this, students are exposed to new concepts and ideas, are engaged with new experiences, and evaluate new and existing perspectives through critical reflection and discourse.  It is through this cycle that learning takes place.

As stated in the introduction, the overarching purpose of the Initiative is to expose students to powerful ideas in a challenging, collaborative environment that will help them embrace their God-given potential and responsibility, and support them as they engage their world in vocation and service (L. Davis, personal communication, September 3, 2014).  We believe the Initiative, including its framework and engagement strategies, will help faculty and students meet this purpose.  More importantly, we believe the Initiative has the potential to empower Christian scholars to fully embrace Paul's admonishment to be transformed by the renewal of their minds and to pursue lives that are good and acceptable in the sight of God.

> *Do not be conformed to this world, but be transformed by the renewal of your mind, that by testing you may discern what is the will of God, what is good and acceptable and perfect.*
>
> *Romans 12:2 (ESV)*

## Appendix A – Additional Resources

The following resources are provided for faculty who wish to pursue their interests in topics discussed in this guide:

**Title:** **Active Learning Classrooms**
**Source:** www.mcgill.ca
**Description:** This website serves as a knowledge base for Active Learning, including learning space design and implementation.

**Title:** **Designing for Learning:  Six Elements in Constructivist Classrooms**
**Source:** George W. Gagnon, Jr. and Michelle Collay
Corwin Press, Inc. | Sage Publications
ISBN 0-7619-2158-3
**Description:** Constructivist Learning Design is a new and different way of thinking about learning and teaching.  This book realizes that teaching and learning are two sides of the same coin and builds on the work of Piaget and Vygotsky to offer a new approach to the constructivist classroom.  Learn how to organize groups, build bridges, ask questions, arrange exhibits, and invite reflection in the creation of teaching and learning designs.
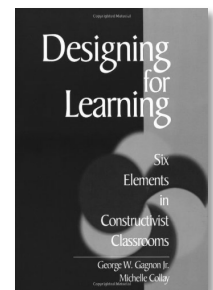
**Title:** **Instructional Development Timeline**
**Source:** my-ecoach.com
**Description:** This website provides a timeline of innovations in the development of various theories and models of learning.  The site also includes links to in-depth discussions on several of the theories discussed in this guide.

**Title:** **Improving Reflective Writing in Higher Education: A Social Semiotic Perspective**
**Source:** Teaching in Higher Education; Feb 2011, Vol. 16, Issue 1
**Description:** Reflective skills are widely regarded as a means of improving students' lifelong learning and professional practice in higher education.  While the value of reflective practice is widely accepted in educational circles, a critical issue is that reflective writing is complex, and has high rhetorical demands, making it difficult to master unless it is taught in an explicit and systematic way.  This paper argues that a functional-semantic

approach to language, based on Halliday's systemic functional linguistics (SFL) can be used to develop a shared language to explicitly teach and assess reflective writing in higher-education courses.

**Title:** **Learning-Theories.com**

Source: www.learning-theories.com

Description: This website serves as a knowledge base for scholars of various fields who are interested in theories and models of learning.

**Title:** **Noteworthy Matters for Attention in Reflective Journal Writing**

Source: Active Learning in Higher Education; March 2014, Vol. 15, Issue 1

Description: The principles advocated in the widely acclaimed keynote texts on reflection have nominally been followed for over 30 years in educational programs and schemes for professional development.  This article was prompted by the impression that practice and theorizing reported in publications about journal writing does not consistently endorse the advice in the seminal literature, and is potentially confusing for those who seek advice and direction.  In particular, some writers tolerate or encourage narrative reporting without significant reflection thereon; many articles only feature aspects of the reflective cycle, and metacognitive forward planning that aims to validate the emerging generalization is often neglected.  Noteworthy matters are identified for attention and suggestions made for an approach that today's journal writers and their mentors may find useful to employ, in order to better focus reflections and validate their generalizations.
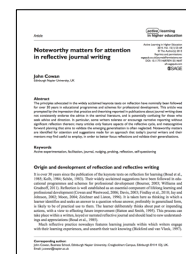
**Title:** **Metacognitive Strategies: Definitions, Examples, and Quiz**

Source: study.com

Description: This lesson will define and explain in detail what metacognitive strategies are and how they can be used in the classroom to help deepen students' thinking about content and develop students who are ready and willing to tackle new content.

**Title:** **Portfolios (Authentic Assessment Toolbox)**

Source: http://jfmueller.faculty.noctrl.edu/toolbox/portfolios.htm

Description: This website contains valuable information regarding the design and development of student portfolios, including how they are assessed.

**Title:** **Reflective Writing, Genres in Academic Writing**

**Source:** www.uefap.com

**Description:** The website, *Using English for Academic Purposes: A Guide for Students in Higher Education*, developed by Andy Gillett, contains practical "how-to" information for faculty as they integrate reflective writing into their pedagogy.

**Title:** **Reflective Writing, Study Advise**

**Source:** www.university of reading.ac.uk

**Description:** This guide is part of a series looking at particular areas of learning that are relevant to practice-based study modules. It explores how to write an assignment which is based upon, or includes, reflective thinking, and has advice on
- the challenges of reflective writing,
- key features of reflective writing,
- using academic evidence in reflective writing,
- selecting the content, and
- getting the language right.

**Title:** **RubiStar**

**Source:** http://rubistar.4teachers.org/index.php

**Description:** RubiStar is a free online tool that guides teachers through the process of creating quality rubrics.

**Title:** **Student Engagement Techniques: A Handbook for College Faculty**

**Source:** Elizabeth F. Barkley
John Wiley & Sons, Inc.
ISBN 0-7619-2158-3

**Description:** Student Engagement Techniques is a comprehensive resource that offers college teachers a dynamic model for engaging students and includes over one hundred tips, strategies, and techniques that have been proven to help teachers from a wide variety of disciplines and institutions motivate and connect with their students. The ready-to-use format shows how to apply each of the book's techniques in the classroom and includes purpose, preparation, procedures, examples, online implementation, variations and extensions, observations and advice, and key resources.
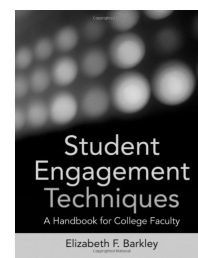
**Title:** **Understanding and Promoting Transformative Learning**

**Source:** Patricia Cranton
Jossey-Bass | John Wiley & Sons, Inc.
ISBN 0-7879-7668-7

**Description:** In the second edition of Understanding and Promoting Transformative Learning, Cranton helps translate theory to practice and guides readers through the many and varied new developments in transformative learning.  The book explains the transformative learning theory, describes the process from the learner's perspective, explores individual differences in transformative learning, presents strategies for fostering transformative learning, and discusses how adult educators themselves are transformative learners.
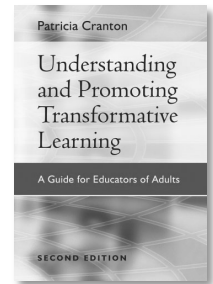
**Title:** **WebQuest.Org**

**Source:** http://webquest.org

**Description:** WebQuest is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web.  A WebQuest will enable an instructor to create and share online lessons that promote higher-level thinking skills and integrate web-based research into his or her lesson plan.

## Appendix B – Faculty Development Sessions

The purpose of this document is to outline the faculty development plan that has been created to promote and support the integration of engaged learning techniques into the University's teaching and learning environment.

### Faculty Development Sessions

Title:     **Orientation to ELI**
Host:      The Center for Instructional Innovation
Speaker:   CII Staff
Audience:  Faculty
Duration:  30 Minutes
Where:     TBD
When:      Fall and Spring Semesters

This session will examine the faculty development process for engaged learning.  Attendees will develop an understanding of the following topics:
- History and impact of engaged learning in higher education,
- Goals and objectives for faculty who participate in engaged learning sessions,
- FHU's faculty development plan to promote and support engaged learning, and
- Resources available to faculty and students.

Title:     **The Basics of Student Engagement**
Host:      The Center for Instructional Innovation
Speaker:   CII Staff
Audience:  Faculty
Duration:  90 Minutes
Where:     TBD
When:      Fall and Spring Semesters

This session will examine the definition of engaged learning and introduce core concepts and strategies used to facilitate student engagement.  The topics addressed during this workshop will provide the faculty member with a framework for transforming existing course elements into an active learning environment.

## Appendix B – Faculty Development Sessions Continued

**Freed-Hardeman University**
**The Center for Instructional Innovation**
**Faculty Development Plan for Engaged Learning**

| | |
|---|---|
| Title: | **Using Reflective Writing to Enhance Student Engagement** |
| Host: | The Center for Instructional Innovation |
| Speaker: | Guest Speaker | CII Staff |
| Audience: | Faculty |
| Duration: | 90 Minutes |
| Where: | TBD |
| When: | Fall and Spring Semesters |

This session will introduce faculty to techniques for facilitating reflective writing that promotes critical reflection and discourse by students.  Attendees will develop an understanding of how these techniques may be implemented in the teaching and learning environment.

| | |
|---|---|
| Title: | **Techniques for Promoting Student Engagement** |
| Host: | The Center for Instructional Innovation |
| Speaker: | CII Staff |
| Audience: | Faculty |
| Duration: | 90 Minutes |
| Where: | TBD |
| When: | Fall and Spring Semesters |

This session will introduce techniques for promoting student engagement.  The application of these techniques will expose students to new ideas and concepts, engage students with new experiences, and encourage students to evaluate their newfound perspectives through critical reflection and discourse.  Each attendee will receive the book titled, *Student Engagement Techniques: A Handbook for College Faculty*, by Elizabeth F. Barkley.

| | |
|---|---|
| Title: | **Using Blackboard Portfolio to Support Student Engagement** |
| Host: | The Center for Instructional Innovation |
| Speaker: | CII Staff |
| Audience: | Faculty |
| Duration: | 90 Minutes |
| Where: | TBD |
| When: | Fall and Spring Semesters |

This session will introduce faculty to Blackboard's Portfolio system.  Attendees will develop an understanding of the various types of portfolios used in education and the associated best practices and workflows used to integrate portfolios into the teaching and learning environment.

Revision 3.1      2015-2016 ELI Faculty Development Plan (R3.1).docx      Page 2

## Appendix B – Faculty Development Sessions Continued

Title:     **Engaged Learning Faculty Workshop**
Host:     The Center for Instructional Innovation
Speaker:  CII Staff
Audience: Faculty
Duration: All Day (Faculty may come-and-go at their convenience.)
Where:   TBD
When:    Fall and Spring Semesters

This workshop will be open to faculty members who seek to integrate engaged learning techniques into their pedagogy. CII staff will be available to work one-on-one with faculty members to review existing course elements and devise a plan to enhance those elements with engaged learning techniques.

Title:     **Engaged Learning Roundtable Discussion**
Host:     The Center for Instructional Innovation
Speaker:  CII Staff
Audience: Faculty
Duration: 90 Minutes
Where:   TBD
When:    Spring Semester

Faculty members who integrate techniques for engaged learning into their pedagogy will be provided an opportunity to discuss their successes and failures with their peers. The goal of this session is to expand the faculty's knowledge base regarding the topic of engaged learning.

## Appendix B – Faculty Development Sessions Continued

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**Additional Services and Support**

The Center for Instructional Innovation will offer faculty the following services and support for the Engaged Learning Initiative.

| | |
|---|---|
| Title: | **ELI Proposal Writing** |
| Host: | Center for Instructional Innovation |
| Contact: | CII Staff |
| Where: | TBD |
| When: | By Appointment |
| Note: | None |

Faculty may schedule an appointment with CII staff to receive assistance in writing proposals for activities and projects that qualify for funding through the Engaged Learning Initiative.

</div>

## Appendix C – ELI Special Project Rubric

### ELI Special Project Rubric

| | 2 | 1 | 0 | Score |
|---|---|---|---|---|
| **Project Description** | Description is clear, concise, and easy to understand. | The description is adequate though the need for greater clarity is apparent. Description may not explain project concisely or with a clear general picture of proposed activities. | Description is not clear. It may be verbose or utilize a lot of field-specific jargon. | |
| **Adequacy & Feasibility of Design** | Processes and procedures are well-stated, manageable, appropriate, and comprehensive. | Processes and procedures for executing the project appear manageable, but there is some uncertainty. | Processes and procedures outlined are unclear, do not follow from project objectives, and/or do not seem entirely manageable. Timeline is not evident. | |
| **Prior Funding Through ELI** | Project has never been funded through ELI. | Project has been funded once through ELI. | Project has been funded two or more times through ELI. | |
| **Expose** | Students are being exposed to new concepts and ideas that challenge their existing perspectives. | Students are being exposed to concepts and ideas; however, these may or may not be considered "new" and may or may not challenge their existing perspectives. | The concepts and ideas that students will be exposed to, including their expected impacts, are not clearly defined or limited in scope. | |
| **Engage** | Students will engage in new and enriched experiences where their involvement will enable them to formulate new perspectives. | Students will engage in new experiences; however, their engagement is not significant and/or participation is marginal. | Students are not engaged in new experiences. | |
| **Evaluate** | Students are provided an opportunity to deeply reflect on the impact of their experiences, and share their newfound understanding of concepts and ideas in a meaningful way. | Students are provided opportunities to reflect on their experiences and share their newfound understanding; however, the nature of their reflections are considered shallow and/or sharing is considered trivial or insignificant. | Students are provided limited or no opportunity to reflect on their experiences and share their newfound understanding of concepts and ideas. | |
| **Budget (Appropriateness & Justification)** | Budget is comprehensive, clearly explained, and appropriate for the activities proposed. All costs are justified, relevant and essential. | Budget is comprehensive and reasonable but not clearly explained. Most costs are justified, relevant and essential to the project. | Budget is not clearly explained and it is not appropriate for the activities proposed. Budget is not comprehensive and reasonable. Some costs are not justified, relevant, or essential. | |
| **Dissemination of Evidence** | Present at University Scholar's Day + 1 additional venue. | Present at University Scholar's Day | Does not plan to share project. | |
| Comments: | | | | Total Score: ____ / 16 |

Revision 2.0                                                                 Page 1

# Appendix D – ELI Sample Forms

**ELI Special Project Proposal Form**

**Your Name:** _____ ☐ Faculty/Staff ☐ Student

**Faculty Sponsor's Name** (for student proposals)**:** _____

**Title of Project:** _____

Circle One:   Academic Research   Creative Expression   Global Citizenship   Servant Leadership   Bridge Experience

☐ I agree to present at FHU's University Scholar's Day. In the space below, list other events and/or publications where you plan to share the results of your project (e.g. FHU Brown-bag lunches, professional conferences, peer-review journals, etc.):

_____

**Project Description**:

- Attach a brief abstract (approx. 5-6 sentences) that summarizes your proposed project.
- Attach a typed narrative (1-2 pages) that describes your project in detail.
- Address the ways in which your project will incorporate student engagement, focusing on the Three E's (Expose, Engage, Evaluate), as described on pp. 15-17 of the Best Practices for Student Engagement Faculty Guide.  Use the "ELI Special Project Rubric" as your guide.
- Address how your project will meet the criteria of one of the five ELI categories, as found on pp. 20-23 of the Best Practices for Student Engagement Faculty Guide.
- Describe the project's reflection and dissemination components (e.g. reflective writing/public presentation).

**Project Start Date:** _____   **Project End Date:** _____

**Funding Requested:**  Total $ _____   Per Student: $ _____
(for student groups)

**Anticipated Expenses** (e.g. transportation, accommodations, meals, registration fees, supplies, and travel expenses)
Supplementary pages may be included if additional space is needed.

| Expense/Item | Amount Per Person | Total Amount |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **TOTAL ANTICIPATED EXPENSES** |  |  |

**Anticipated Funding** (e.g. departmental funds, endowed scholarship proceeds, participant contributions, other non-FHU sources)
Supplementary pages may be included if additional space is needed.

| Funding Source | Amount Per Student | Total Amount |
|---|---|---|
| Engaged Learning Initiative (ELI) |  |  |
|  |  |  |
|  |  |  |
| **TOTAL ANTICIPATED FUNDING** |  |  |

## Appendix D – ELI Sample Forms Continued

**ELI Special Project Proposal Form Instructions**

**Best Practices for Student Engagement Faculty Guide**

Specific guidelines and instructions for designing ELI projects are available in the Best Practices for Student Engagement Faculty Guide. A proposed project is more likely to be accepted if it scores highly on the ELI Special Project Rubric (Appendix C of the Best Practices Guide) when the proposal is evaluated by the ELI Committee.

**Project Proposal and Project Completion Deadlines**

The proposal deadline for projects to be funded during the summer term is **February 1**.

The proposal deadline for projects to be funded after the summer term but during the following academic year is **April 1**.

Student projects must be completed within one year of receiving funding or by the time of the student's graduation or transfer from Freed-Hardeman University. A student who fails to complete the project prior to this deadline must refund the full amount of the ELI grant to Freed-Hardeman University.

Proposals should be submitted to eli@fhu.edu

**Anticipated Expenses**

Include **all** expenses associated with your project in your proposal, including expenses that you are not requesting to be funded by ELI. Anticipated expenses may include, but are not limited to: transportation, accommodations, meals, registration fees, supplies, and travel insurance.

In some instances, a stipend may be appropriate for faculty and/or student participants. Stipends are processed and paid by the FHU Payroll Office, and the required payroll paperwork must be completed before stipends can be issued. If requesting a stipend, also include FICA taxes (Social Security and Medicare) in your requested funding, calculated at 7.65% of the total stipend amount. Federal income taxes will be withheld from the stipend unless an exemption is claimed on Form W-4.

**All projects that involve international travel should consult the FHU Abroad Office (fhuabroad@fhu.edu) before submitting an ELI proposal.** FHU Abroad will help plan the logistics of the international trip and prepare the project's budget. ELI funding will only be available for international travel experiences that include a specific, distinctive, and worthwhile ELI special project. ELI funding will **not** be awarded for:

- general study abroad expenses
- tuition at other universities
- paid internships/professional field experiences

**Anticipated Funding**

The total anticipated expenses shown on the project proposal form must match the total anticipated funding. In addition to an ELI grant, potential funding sources may include departmental funds, endowed scholarship proceeds, and—frequently—participant contributions. If travel is involved, student participants are generally expected to contribute some amount to the project financially.

Projects funded with University funds will be expected to adhere to Policy 2.8 – Intellectual Property. The policy may be viewed by visiting https://www.fhu.edu/policy.

## Appendix D – ELI Sample Forms Continued

### ELI Special Project Completion Form

**Student Name:** _____

**Field Supervisor:** _____

**ELI Category:** (choose one)
☐Academic Research   ☐Creative Expression   ☐Global Citizenship
☐Servant Leadership   ☐Bridge Experience

**Project Type:** (choose one)
☐Student-designed Project   ☐Faculty-designed Project

**Project Title:** _____
_____

**Project Dates:** _____

**For Servant Leadership, Total number of hours:** _____
    *Attach Hours Log

**Project Description:**
**Attach a typed paragraph that describes your project to this form.**
- Please limit your description to approximately 150-200 words.
- Describe the basic details of your project (who, what, when, and where).
- Include a sentence or two about what you perceive to have been the most significant learning outcomes of this experience.

**The project has been satisfactory completed.**

**ELI Supervisor Signature:** _____   **Date:** _____

**Student Signature:** _____   **Date:** _____

Revision 1.0             Page 1

## Appendix D – ELI Sample Forms Continued

### ELI Special Project Hours Log

**First Name:** _____    **Last Name:** _____

**FHU Supervisor (print)** _____

**On-Site Supervisor (print)** _____
If no on-site supervisor is available, log your hours and show this form to your FHU supervisor for approval.

**Hours Log:**

| Date | Activities | Hours | On-Site Supervisor Signature |
|------|-----------|-------|------------------------------|
|      |           |       |                              |
|      |           |       |                              |
|      |           |       |                              |
|      |           |       |                              |
|      |           |       |                              |
|      | **Total Hours** |   |                              |

**FHU Supervisor Signature:** _____    **Date:** _____

**Student Signature:** _____    **Date:** _____

Revision 1.0                                                                 Page 1

# Glossary

The following terms and definitions are provided to help the reader understand their usage in this guide.  Please refer to other sources for a broader definition of each term.

| | |
|---|---|
| **5E Instructional Model** | An instructional design model that defines a learning sequence based on the experiential learning philosophy. |
| **Active Learning** | A model of instruction that focuses the responsibility of learning on the learner where learners are thinking and doing. |
| **Andragogy** | The theory and practice of educating adults. |
| **Authentic Assessment** | An assessment methodology that incorporates "real-world" situations in the assessment process. |
| **Behaviorism** | The theory that human or animal psychology can be accurately studied only through the examination and analysis of objectively observable and quantifiable behavioral events, in contrast with subjective mental states. |
| **Cognitive Apprenticeships** | A theory of the process where a master of a skill teaches that skill to an apprentice. |
| **Cognitivism** | The psychology of learning, which emphasizes human cognition or intelligence as a special endowment enabling people to form hypotheses and develop intellectually. |
| **Concept Mapping** | A type of graphic organizer used to help students organize and represent knowledge of a subject. |
| **Constructivism** | A theory of learning that states people will construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. |
| **Critical Reflection** | A reasoning process to make meaning of an experience.  Critical reflection is descriptive, analytical, and critical, and can be articulated in a number of ways, such as in written form, orally, or as an artistic expression. |
| **Differentiated Course Elements** | Sets of learning activities that form multiple pathways to achieving common learning outcomes or objectives. |
| **Discovery Learning** | A technique of inquiry-based learning and is considered a constructivist-based approach to education.  It teaches that it is best for learners to discover facts and relationships for themselves. |
| **Engaged Learning** | A process and a product that is experienced on a continuum and results from the synergistic interaction between motivation and active learning. |
| **Equilibration** | Accommodation of incoming information with existing thinking to maintain cognitive balance. |

| | |
|---|---|
| **Experiential Learning** | The process of learning through experience and reflection upon doing. |
| **Frame of Reference** | The assumptions and expectations through which we filter the way we see the world.  A Frame of Reference is composed of Habits of Mind and Points of View. |
| **Formative Assessment** | An assessment methodology that provides feedback and encourages adjustment and correction as students engage in learning activities. |
| **Habits of Mind** | Broad predispositions that formulate our view of the world based on our background, experience, culture, and personality. |
| **Humanism** | A philosophy that human beings have the right and responsibility to give meaning and shape to their own lives. |
| **Humanistic Psychology** | A psychological approach that views humans as holistic individuals capable of determining their own behaviors and goals and are motivated to fulfill their human potential. |
| **Inquiry Learning** | Intellectual engagement that fosters deep understanding through the development of a hands-on, minds-on, and research-based disposition. |
| **Instructional Scaffolding** | Refers to a variety of instructional techniques used to move students progressively toward stronger understanding, and ultimately, greater independence in the learning process. |
| **Learning Contract** | A collaboratively written agreement between a student and a faculty member that delineates what is to be learned, how it will be learned, and how that learning will be evaluated. |
| **Metacognition** | Being aware of what you know and don't know, understanding what you will need to know for a certain task and having an idea of how to use your current skills to learn what you don't know. |
| **Optimal Challenge Zone** | The level of challenge that optimizes learning for a given student in a safe, comfortable environment. |
| **Pedagogy** | The theory and practice of educating children. |
| **Perspective Transformation** | The structural reorganization of the way a person looks at himself or herself. |
| **Points of View** | A set of habitual, implicit rules for interpreting experiences and expressing our Habits of Mind. |
| **Portfolio** | A compilation of student work that showcases evidence of academic growth and achievement. |
| **Social Cognitive Theory** | Instruction that provides a learner with meaningful dilemmas that are socially relevant to his or her level of development, occurs within the learner's Zone of Proximal Development, and is coupled with advanced partners. |
| **Summative Assessment** | An assessment methodology that is administered at the end of a topic, unit, or course to produce a grade. |

| | |
|---|---|
| **Transformative Learning** | Learning that is induced through experiences, which has a significant impact on the learner's perspectives and affects the learner's subsequent behaviors and view of the world. |
| **Zone of Proximal Development** | The difference between the learner's ability to perform a task independently verses with guidance. |

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## Document History

This section records the revision history of this document.

| Date | Name | Revision | Description |
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| 12/11/2015 | A.B. White | 1.0 | The document was originally created and approved for dissemination. |
| 09/26/2016 | Holly Rowsey | 2.0 | The document was updated with new ELI Forms. |
| 11/04/2016 | Holly Rowsey | 2.1 | The *ELI Special Project Form Instructions* were updated to include Policy 2.8 – Intellectual Property. |
| 09/28/2017 | Holly Rowsey | 2.2 | The *ELI Special Project Rubric* and the *ELI Special Project Form Instructions* were updated to include the ELI committee's recommendations. |
| 09/02/2021 | Holly Rowsey | 3.0 | The section on portfolios was updated to reflect the use of Instructure Canvas's portfolio system. |