

## **Motivation of adult learners in self-directed learning environments: Applying the ARCS Model of Motivational Design**

### **Introduction**

Existing and emerging e-learning technologies are having intense, immediate, and disruptive transformations on teaching and learning processes in the United States educational system (Archer, Garrison, & Anderson, 1999). E-learning or online learning is defined as “the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience” (Ally, 2002, p.5). As a result of e-learning, the field of education, from childhood education all the way up to university settings, is seeing profound changes in the design and delivery of courses. The World Wide Web (Internet), the main technology used to design and deliver e-learning, is a multifaceted technology that offers various communication and information management tools. These tools can be exploited to deliver effective education and training (Anderson, 2004). While these changes open up new opportunities, they also present new challenges (Archer, Garrison & Anderson, 1999). One of the challenges is stimulating and sustaining learner motivation. Research shows that overcoming these motivational challenges is difficult in the online environment (Keller & Suzuki, 2004). Other challenges include the lack of social presence and immediacy in an online environment (Muilenburg & Berge, 2005).

In addition to education, other organizations are increasingly adopting e-learning as their main delivery method to train employees (Simmons, 2002). E-learning expands

training opportunities for practitioners and employees, offers the possibility of accessing training at a lower cost, and provides adult learners with the flexibility to attend a course from any location, and at any time (Cole, 2000). However, along with the benefits, literature also points to many challenges of online or e-learning for both adult learners and organizations with regard to the delivery, acquisition of knowledge and skills, and evaluation of its effectiveness (Best, 2008). Benefits and challenges of online learning in general and training in particular can be attributed to the characteristics of online learning environments.

An online or e-learning environment allows for flexibility of access, from anywhere and usually at anytime—essentially, it allows participants to collapse time and space (Cole, 2000). In addition, in an online learning environment, resources can be distributed more readily to support student learning. The environment enables learners to link to an expanded set of resources; no longer is the choice and availability of content restricted to a textbook (Boettcher, 2007) or specific learning materials. Easy distribution of learning materials and resources provides an opportunity to address learners' needs and promote learning experiences, which can be more relevant and allow learners to set their own learning goals. With the use of networked computing and communication technologies, there are more opportunities for interaction, collaboration and formation of social structures within the learning environment.

Interaction, or what Wagner (1994) defines as “reciprocal events that require at least two objects and two actions that mutually influence one another” (p.8) is a critical feature of online learning. Moore (1989) introduced the three most common forms of interaction in distance education: student-student, student-teacher, and student-content. It

is expected that the teacher facilitated online learning environments include all three types of these interactions. However, as opposed to online learning environments that are facilitated through communication means by an instructor, environments that are self-directed usually do not have a formal community of learners. The only formal interaction in this type of e-learning environment occurs between the learner and the learning content. Although student-content interaction has been a major component of education and training (Anderson, 2008), the emergence of online learning and technological tools available in Web-supported learning environments has made this type of “self directed” learning environments more popular particularly in training settings.

### **Self-directed Learning Online or E-Learning**

Self-Directed Learning (SDL) integrates a learner’s self-management of the context and resources with self-monitoring and self-evaluation (Bolhuis, 1996; Garrison, 1997). Essentially, learners must take responsibility for their own progress and their own learning; they can start and stop where they want in the module, they can assess themselves, and make decisions about if they are ready to continue on. SDL recognizes the significance that motivation and volition play; motivation drives the decision to participate, and volition maintains a learner’s will to complete a task (Corno, 1992). In a self-directed online learning environment, learners are assumed to construct their own meanings, goals and strategies from the information available in the environment as well as information in their own minds. This assumption does not mean that the individuals will or can monitor and control their cognition, motivation or behavior, rather that it is possible (Pintrich, 2004).

Use of most forms of e-learning has remained relatively steady over the last years,

but interest in on-demand, self-paced learning appears to have experienced even more significant growth in that 70% of adult learning is through a self-directed context (Hiemstra, 1999). The steady increase in on-demand, self-paced learning has resulted in development and delivery of many self-directed learning materials through Learning Management Systems (LMS).

A learning management system is a software application that automates the administration, tracking and reporting of e-learning courses and content. Thus, it is now possible for trainers, teachers and other facilitators to view the progress of an individual learner. It also makes it possible for institutions and organizations to measure the impact and effectiveness of a course (Ellis, 2009). However, learning management systems also have many limitations. They can be cumbersome tools for educators to use, and often the provided templates are restricted, not allowing for variation in course design (Govindasamy, 2002). In addition, a recent study found that frequently many of the tools within an LMS are left unused because educators and trainers lack knowledge in how to use them (Govindasamy, 2002).

### **Self-Directed Learning and Adult Learners**

Adult learners are different from traditional college students. Many adult learners have responsibilities such as families, professions and situations that often interfere with their learning process or professional development plans. Adult learning theories suggest that adult learners are more motivated to learn and many show ability to direct their own learning (Knowles, 1989). Characteristics of adults as self-directed learners include independence, willingness to take initiative, persistence in learning, self-discipline, self-confidence, and the desire to learn more (Merriam & Caffarella, 1999). In addition, since

most adults choose to improve their own knowledge and skills they prefer to manage their training or education around work and other responsibilities.

Perhaps for the above reasons and others, online learning has been more attractive to adult learners (Gatta, 2005). The number of programs for adult learners delivered online in corporate settings as well as in higher education has steadily increased over the last few years. Research reports show that more adults are enrolling in online and self-directed courses (Bersin, 2005). Despite the growth in adult learners' interest in online learning, many organizations and higher education institutions have experienced high dropout in self-directed online courses (Parker, 1999). According to Meister (2002), 70 percent of adult learners enrolled in a corporate online program did not complete it.

Researchers have been exploring the reasons for this high attrition. Some researchers found that attrition is the result of life circumstances; that the student's intent to leave is influenced by their busy lifestyles, lack of social support and poor organizational abilities (Park and Choi, 2009, Tinto, 1993). Others suggest that not all adults are self-directed and that some may need help to become more self-directed and motivated (Keller, 1999, Rovai, 2003, Park & Choi, 2009). These researchers contend that unfortunately, many adults may be ill equipped to establish goals, assess their progress, direct their attention, allocate time and exert a continuous effort (Rossett, 2003). Knowles (1980) explains that many adults come into education systems with years of conditioning in their previous school experience to perceive the role of "student" as being a dependent one. Therefore, while they may be self-directed in many other roles in their lives- as workers, spouses and parents, the minute they walk through the door labeled "education" they become dependent and expect to be taught. The learners then become discouraged

when they are faced with a self-directed instructional environment, which leads to attrition. With this high attrition rate, there is a need to develop instruction that will assist adult learners with goal setting, self-assessment and self-direction, while maintaining their attention and promoting confidence.

### **The Purpose**

The purpose of this study was to examine the effects of motivational design strategies on adult learners' motivation, attitudes, and satisfaction towards an online self-directed course. Specifically, it attempted to answer the following questions:

- Would including motivational tactics in the course improve learners' attitudes and satisfaction?
- Would including motivational tactics in the course enhance learning and increase learners' engagement with learning materials?

Keller's (2008) motivational design model was used as a framework to (1) analyze the design of an existing self-directed online course for in-service teachers' professional development, (2) identify the critical motivational components missing in the design and deployment of the course materials, (3) redesign the course materials by integrating Keller's motivational and self-regulation learning strategies, and (4) assess whether the changes improve adult learners' motivation, attitude, and satisfaction.

### **Instructional Design and Motivation**

Instructional design or instructional systems design "requires defining what is to be learned, planning an intervention that will allow learning to occur, measuring learning to determine if objectives were met, and refining the intervention until objectives are met" (Seels & Glasgow, 1998; p.7). According to this definition to properly design instruction,

the designer will have to use a systematic process to conduct needs assessment and analyze the learners before identifying objectives, assessment and instructional strategies. The systematic process of designing instruction is explained more specifically in a well-known model of instructional system design developed by Dick, Carey and Carey (2010). Figure 1 shows the model and the process of systematically designing instruction.

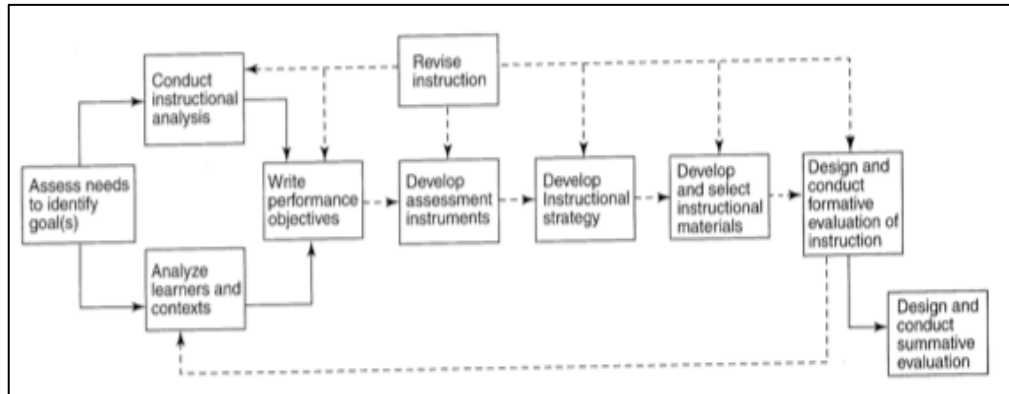


Figure 1. The Dick and Carey Design Model adopted from “The Systematic Design of Instruction”, 1996

This “Systematic Design of Instruction” model allows the instructional designer to go through the proper steps to ensure materials are instructionally sound. This includes the first stage of properly assessing and analyzing an instructional situation, including the learners, the context and the subject matter. Next, the instructional designer will write the performance objectives and develop the assessment instruments during the design phase. Once design is complete, the development will occur in which instructional materials will actually be created. This is followed by formative evaluation where instruction is field tested on a sample population of the learners and then revised as needed. Once the instruction is ready, it is implemented with the group of learners and summatively evaluated upon completion. The value of implementing these instructional design processes is that they will ensure the learner’s needs are met. By taking the time to

formulate your goals and objectives, and match them with an assessment and sound instruction, you are better equipping the learner for not only the instruction, but also what they may face afterwards. This model provides the framework for instructional design projects, and only once this is in place can the motivational design implementation be successful.

### **Motivational Design**

According to Keller (2010), motivation is generally defined as that which explains what goals people choose to pursue and how actively they pursue them. It refers to what people desire, what they choose to do and why they do it. Designing instruction that is motivating goes beyond just applying the instructional design principles explained earlier. John Keller is a pioneer in developing a motivational design model that guides instructional designers in creating instruction and instructional materials that are motivating. Keller conducted an extensive review of the literature to develop his motivational design model. Figure 2 below shows Keller's original motivational Design Model, which is based on his synthesis of the literature. In his model, Keller (2006) refers to motivational design as the process of arranging resources and procedures to bring about changes in motivation. Grounded in a number of motivational theories including expectancy-value theory, reinforcement theory, and cognitive evaluation theory, the model explains the relationships among a learner's effort, performance and satisfaction with a learning event. What makes Keller's motivational design model so unique is the fact that it allows the designer to solve motivational problems related to the appeal of the instruction (Keller, 2006).



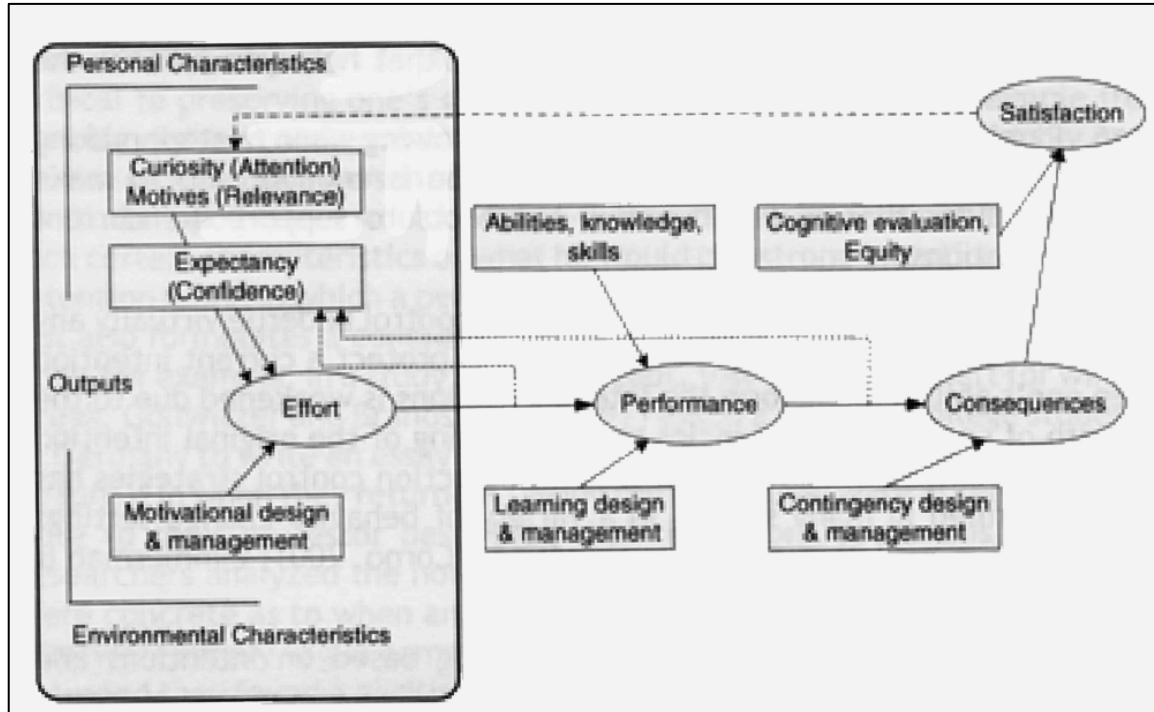


Figure 2. Keller's Motivational Design Model adopted from "Motivational Design for Learning and Performance: The ARCS Model Approach", 2010

Using his motivational design model, Keller (1979) explains that in order to have motivated students, several factors must be present. Learners' curiosity must be aroused and sustained (Attention), learners must perceive the instruction as being relevant to their values or goals (Relevance), they must believe that they will be able to succeed (Confidence), and the outcomes of the experience must be consistent with their own personal incentives (Satisfaction). Keller further uses these four categories of motivational attributes (Attention, Relevance, Confidence and Satisfaction (ARCS)) to recommend motivational design strategies and tactics.

Figure 3 below represents the ARCS subcategories, and the areas for which tactics should be implemented. Dick, Carey and Cary's Instructional Design model and Keller's Motivational Design Model (see Figure 2) were used as the frameworks in this study. More specifically, Keller's list of motivational strategies and tactics were used to analyze

an existing course and the materials to identify its current design and motivational features and propose suggestions for how to motivationally enhance instruction.

<p><b>Attention Factor</b></p> <p>A student's attention has to be aroused and sustained. This category also includes things that relate to curiosity and sensation seeking.</p> <p><b>Strategies</b></p> <ul style="list-style-type: none"> <li>• Perceptual Arousal. Gain and maintain student attention by the use of novel, surprising, incongruous, or uncertain events in instruction.</li> <li>• Inquiry Arousal. Stimulate information seeking behavior by posing, or having the learner generate questions, or a problem to solve.</li> <li>• Variability. Maintain student interest by varying the elements of instruction.</li> </ul>
<p><b>Relevance Factor</b></p> <p>After the student's attention is gained, a student may wonder how the given material relates to their interests and goals. If the content is perceived to be helpful in accomplishing one's goals, then they are more likely to be motivated.</p> <p><b>Strategies</b></p> <ul style="list-style-type: none"> <li>• Familiarity. Use concrete language and use examples/concepts that are related to the learner's experience and values.</li> <li>• Goal Orientation. Provide statements or examples that present the objectives and utility of the instruction and either present goals for accomplishment or have the learner define them.</li> <li>• Motive Watching. Use teaching strategies that match the motive profiles of the students.</li> </ul>
<p><b>Confidence Factor</b></p> <p>Students have to know that they will probably be successful before completing a given task. They have to feel somewhat confident. Success is not guaranteed and people enjoy a challenge. However, the challenge can't be too difficult.</p> <p><b>Strategies</b></p> <ul style="list-style-type: none"> <li>• Learning Requirements. Help students estimate the probability of success by presenting performance requirements and evaluative criteria.</li> <li>• Success Opportunities. Provide challenge levels that allow meaningful success experience under both learning and performance conditions.</li> <li>• Personal Control. Provide feedback and opportunities for control that support internal attributions for success.</li> </ul>
<p><b>Satisfaction Factor</b></p> <p>If the outcomes of a learner's effort is consistent with their expectations and they feel relatively good about those outcomes, they will remain motivated.</p> <p><b>Strategies</b></p> <ul style="list-style-type: none"> <li>• Natural consequences. Provide opportunities to use newly acquired knowledge or skill in a real or stimulated setting.</li> <li>• Positive consequences. Provide feedback and reinforcements that will sustain the desired behavior.</li> <li>• Equity. Maintain consistent standards and consequences for task accomplishment.</li> </ul>

Figure 3. ARCS subcategories and tactics adopted from Keller, J.M and Suzuki's "Learner Motivation and e-Learning Design: A Multinationally Validated Process", 2004

## Motivational Design

There are a number of obstacles to successfully applying motivational design in self-directed learning materials. First, it is much easier to design for learner motivation in a classroom setting where a teacher or tutor can respond to a learner's motivational needs; however, it is a more difficult challenge to make self-directed environments responsive to a learner's motivational needs (Keller 1999). In addition, because all learners are different, and self-directed materials are often created for a wide variety of learners, it can be

difficult to design a pre-packaged module to be effective for needs of specific users. Nevertheless, Keller (1999) claims that it is possible to include a large number of motivational tactics in order to include needs of a bigger population of learners.

Keller (2006) explains that in order for the ARCS Model to be effective, the motivational tactics must be implemented in a way that they support instructional goals. While motivational features can add entertainment value or humor, they will not be successful if they do not promote learning. Therefore, while it is important to make the learning materials more appealing to the learners, an instructional designer must ensure that the tactics are not purely entertaining. In addition, motivation includes many fluctuating factors, such as a learner's transitory states of arousal and changing motives, making motivation unstable. Keller also found that the measurement of motivation is difficult; there are many elements of influence and change in motivational design, making it difficult to evaluate results. Lastly, technology constraints and demands can create obstacles when designing the learning environment (Anderson, 2008). Many learning management systems have limitations and restricted flexibility with regard to the application of certain strategies and tactics within a course.

### **Applying Keller's Model in Analyzing and Designing a Self-Directed Professional Development Course**

An existing professional development course entitled "Introduction to Culturally Responsive Teaching," was selected for the analysis of motivational design. The course is geared towards in-service teachers, who are looking to gain continuing education credits for their licensure. It was created within the Blackboard Learn Learning Management System, and has been designed for a self-directed environment. The course takes

approximately eight hours to complete, and is divided into three modules. It is still in the beta testing phase, and had not yet been fully implemented.

The course was first analyzed for the basic principles of instructional design (see Figure 1) to ensure that they were properly addressed. Next, the course was analyzed using the ARCS model (see Figure 2). This included analyzing the course rationale, the delivery system, the introductory materials and the current data created by the reporting metrics within the LMS. Following the introductory analysis, the existing course materials were analyzed for motivational tactics and positive features (see Appendix A) as well as lacking motivational features. The results of this analysis was a list of motivational design elements that are currently present in the course as well as a list of recommended tactics for areas in which motivational strategies were absent. This list was organized into the areas of attention, confidence, relevance and satisfaction. The list provided the strategies and tactics needed in the revised course. The majority of the changes included personalizing the materials to the learners' needs by providing realistic examples and scenarios, presenting sample responses to the activities to increase feedback, and reorganization of elements to increase relevance and satisfaction with the materials.

### **Applying Motivational Design Strategies and Tactics: An analytical Framework**

Figure 4 below represents the ten steps of Keller's ARCS Motivational Design Process. These ten steps help to identify critical areas on which to focus motivational-design efforts to improve the probability of success in a course (Keller, 1983). This model was used throughout the analysis, re-design and development of the course. This model works in conjunction with instructional design models and provided a framework for

revising the course.

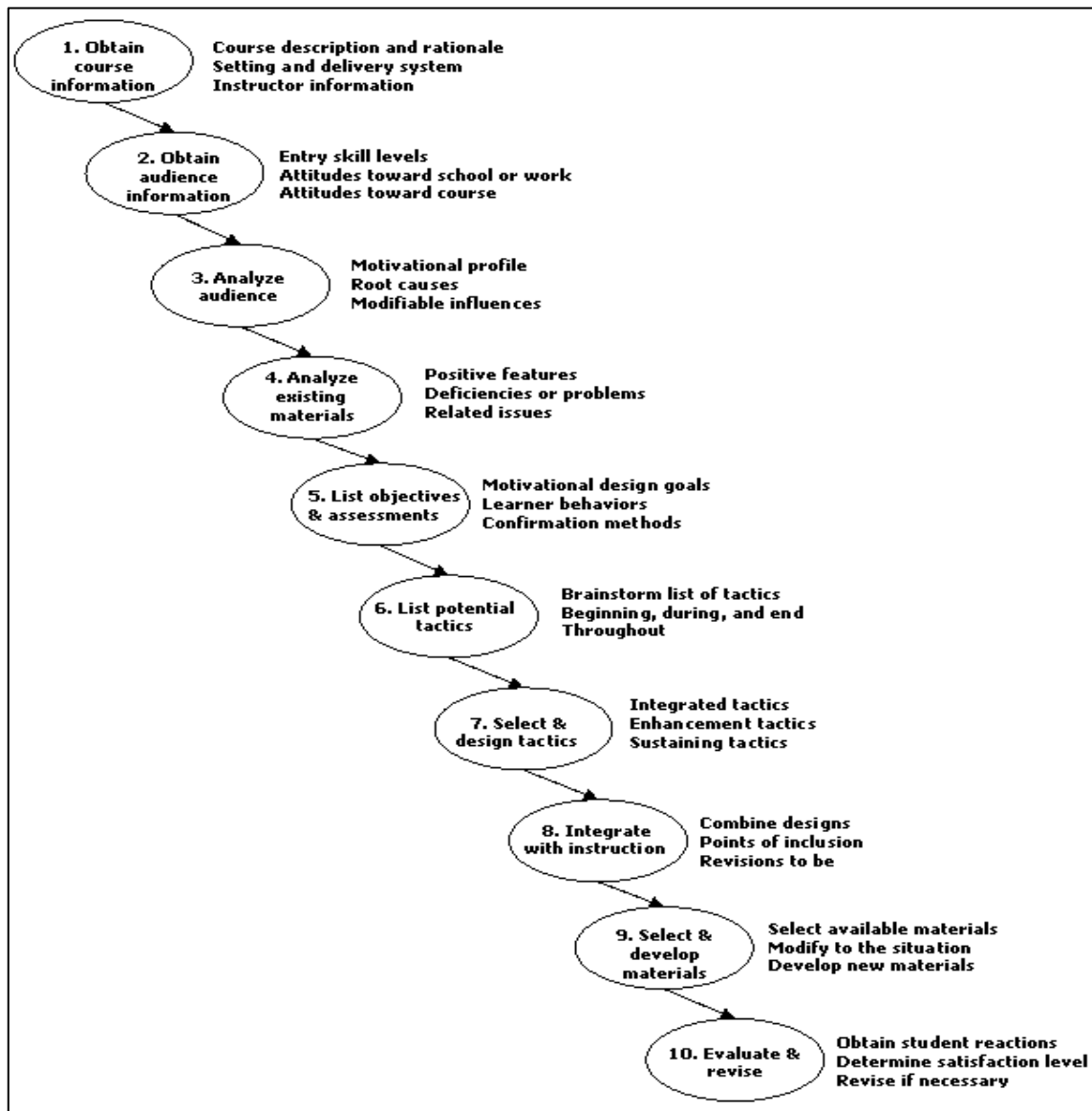


Figure 4. Keller's Ten Step ARCS Motivational Design Process adopted from "Motivational Design of Instruction", 1983

## Evaluation Process

### The Participants

Fourteen in-service teachers volunteered to participate in the evaluation process. All volunteer teachers were currently working as a classroom teacher with students in

grades Kindergarten through 12<sup>th</sup> grade. Each person had a minimum of a bachelor's degree and a valid teaching license. See table 1 below for more information on the participants.

<b>Gender</b>	<ul style="list-style-type: none"> <li>• 12 (85.7%) female</li> <li>• 2 (14.3%) male</li> </ul>
<b>Age</b>	<ul style="list-style-type: none"> <li>• 6 (42.9%) ages 21 – 30</li> <li>• 3 (21.4%) ages 31 – 40</li> <li>• 3 (21.4%) ages 41 – 50</li> <li>• 2 (14.3%) ages 51 – 60</li> </ul>
<b>Teaching Experience</b>	<ul style="list-style-type: none"> <li>• 2 (14.3%) with 1 to 3 years</li> <li>• 3 (21.4%) with 3 to 7 years</li> <li>• 3 (21.4%) with 7 to 10 years</li> <li>• 4 (28.6%) with 10 to 15 years</li> <li>• 2 (14.3%) with 15+ years</li> </ul>
<b>Grades Taught</b>	<ul style="list-style-type: none"> <li>• 3 (21.4%) in Pre K to Kindergarten</li> <li>• 1 (0.07%) in 1<sup>st</sup> &amp; 2<sup>nd</sup> grade</li> <li>• 4 (28.6%) in 3<sup>rd</sup> – 5<sup>th</sup> grade</li> <li>• 4 (28.6%) in 6<sup>th</sup> – 8<sup>th</sup> grade</li> <li>• 2 (14.3%) in 9<sup>th</sup> – 12<sup>th</sup> grade</li> </ul>
<b>Online Professional Development Experience</b>	<ul style="list-style-type: none"> <li>• 8 (57.2%) have taken online PD</li> <li>• 6 (42.9%) have never taken online PD</li> </ul>
<b>Cultural Diversity Professional Development Experience</b>	<ul style="list-style-type: none"> <li>• 4 (28.6%) have taken a diversity course before</li> <li>• 10 (71.4%) have never taken a diversity course before</li> </ul>

*Table 1. Demographics of Participants*

The participants were randomly assigned to one of two groups, the control or the experimental group. Each group had seven members. The control group members were enrolled in the original version of the professional development course and the experimental group members were enrolled in the revised version of the course with the ARCS strategies being present. Participants did not know which group they were being assigned to.

### **The Procedure**

Once the teachers expressed their interest in taking the course, they were directed to an automated enrollment form on the Internet. Once enrolled, they were given a two-week time frame to complete the course. Due to the time constraints of this project, it was only required that the participants complete one of the three modules for this experiment. Therefore, participants were directed to complete only module two in addition to completing the pre and post course surveys and go through the various course introductory materials including the syllabus, schedule and instructor's introductory video. Module two required the participants to not only go through the various content, in the form of narrated Power Points, videos and articles, but it also required the learners to complete both an assessment and a case study assignment.

### **Data Collection Instruments**

The data was collected using several different strategies. These included a pre-course and a post-course survey assessing attitude, motivation and satisfaction, a case analysis assignment and a test assessing learners' learning, and the Blackboard reporting tool to track engagement of the learners with the learning materials.

The learners' levels of motivation, attitude and satisfaction were primarily collected through two different surveys. The surveys were created in Survey Monkey and links to each were placed within the course. The pre-course survey was used to collect demographic data on the participants, as well as to assess their motivation prior to taking the course. The seven questions used to evaluate the learners' motivation were adapted from Keller's (2006a) Course Interest Survey. This adapted survey includes questions specific to the ARCS categories of motivation. For a complete list of these questions, see appendix B. The post-course survey was used to measure the learners' attitude and

motivation after completing the course and evaluate their reactions to the course materials. This survey was also adapted from Keller's (2006a) Instructional Materials Motivation Survey (IMMS). The post-course survey featured seventeen questions, each focusing on a different area of ARCS. Of these questions, 5 were focused on attention, 4 on relevance, 4 on confidence and 4 on satisfaction. This survey can be found in appendix C.

In addition, there was an assessment of learning objectives and one case based assignment in module two, which were also used for data collection. The learners' grades on the assessment were calculated, and their assignments were scored based on a scale of 0 – 5, depending on if they provided answers for each of the 5 questions. There were a few open-ended items at the end of the case study assignment, which required the learners to analyze the case and respond.

Lastly, the reporting feature of Blackboard Learn was used. This provided information on how long and when the participants were accessing the course, the number of times they visited pages, and verified if they opened the various course materials.

### **Data Analysis**

Quantitative analysis was conducted for the two surveys. The data from each survey was put into SPSS and descriptive statistics were used to assess whether the new design features using the ARCS model, tactics and strategies impacted the learners' attitudes, satisfaction, learning and their interaction with the learning materials.

The Blackboard LMS tracking feature was analyzed using the frequency in which materials within the course were accessed, as well as for the overall time learners spent in the course environment. In addition, the Blackboard grading center was used to collect the scores for the assignment and test. The individual performance of each participant was



recorded, and then the control and experimental groups were compared based on overall performance.

The case based scenarios assignment involved collecting responses to five open-ended questions as well as selecting the best solution from a multiple response item for each case. The multiple-choice items were scored on a scale of 1 to 5, in which participants scored a point for each correct answer. Qualitative analysis was used for responses to open-ended questions.

## Results

This evaluation study aimed to answer two questions. The first question of the study asked *whether or not including motivational tactics in the course would improve students' attitudes and motivation*. Table 2 below shows the comparison between the control group and experimental group with regard to the pre-course motivational survey. This survey was used to gauge the learners' motivation prior to entering the course environment. As seen in Table 2, the two groups had a relatively high level of motivation going into the course. Out of the seven questions included in the pre-course survey, the control group had a higher level of motivation in three of them, the experimental group had a higher level in three, and they were equal in the seventh. Therefore, there are no significant differences with regard to the pre-course survey and it can be said that both groups entered with a high level of motivation. This could be due to the fact that the learners volunteered for the study and chose to participate.

	Control Group (N=7)	Experimental Group (N=7)
Survey Items	Mean (SD)	Mean (SD)
1. The things I will learn in this course will be useful to me	4.14 (.38)	3.29 (.95)
2. I feel confident that I will do well in this course	4.00 (.58)	3.86 (.69)

3. I have to work hard to succeed in this course	3.14 (1.22)	3.43 (1.27)
4. Whether or not I succeed in this course is up to me.	4.14 (.69)	3.86 (1.35)
5. I do not think I will benefit much from this course	1.71 (.95)	1.29 (.49)
6. The content of this course relates to my expectations and goals	3.43 (.79)	3.57 (.79)
7. To accomplish my goals, it is important that I do well in this course	3.43 (.79)	3.43 (1.27)

Table 2. Comparison of Pre Course Descriptive Statistics

As seen in Table 2, the two groups had a relatively high level of motivation going into the course. This could be due to the fact that the learners volunteered for the study and chose to participate.

Survey Items	Control Group Mean (SD)	Experimental Group Mean (SD)
1. When I first looked at this lesson, I had the impression that it would be easy for me	2.71 (.75)	3.00 (.82)
2. There was something interesting at the beginning of this lesson that got my attention	3.42 (.78)	4.14 (.37)
3. After reading the introductory information, I felt confident that I knew what I was supposed to learn	3.42 (.78)	4.14 (.89)
4. Completing the exercises in this lesson gave me a satisfying feeling of accomplishment	3.57 (.97)	4.14 (.37)
5. It is clear to me how the content of this material is related to things I already know	3.71 (.75)	4.57 (.53)
6. Many of the pages had so much information that it was hard to remember the important parts	2.14 (1.21)	1.42 (1.13)
7. These materials are eye-catching	3.14 (.89)	3.71 (.48)
8. There were stories or examples that showed me how this material could be important to some people	3.57 (.97)	4.00 (.57)
9. Completing this lesson successfully was important to me	4.00 (.57)	3.42 (1.13)
10. The quality of the writing helped to hold my attention	3.28 (.75)	3.57 (.53)
11. This lesson is so abstract that it was hard to keep my attention on it	1.14 (.37)	1.28 (.75)
12. As I worked on this lesson, I was confident that I could learn the content	4.57 (.78)	4.85 (.37)
13. I enjoyed this lesson so much that I would like to know more about this topic	3.57 (.53)	3.42 (.78)
14. The pages of this lesson look dry and unappealing	1.57 (.78)	1.42 (.78)
15. The content of this material is relevant to my interests	4.00 (.57)	3.57 (.78)
16. The way the information is arranged on the pages helped keep my attention	3.14 (.89)	3.71 (.48)
17. There were explanations or examples of how people use the knowledge in this lesson	3.28 (1.12)	4.28 (.48)

*Table 3. Comparison of Post Course Descriptive Statistics*

In order to examine the relationship between learners' responses to the pre-survey motivational questions and variables such as years of teaching experience, grade level, professional development experience, further analysis was conducted. The results showed that the most highly motivated learners were teachers with seven to ten years of experience. Those with less than seven years had the least amount of motivation, and those with greater than ten years fell in the middle. There were no significant differences across the various grade levels taught with regard to motivation, however those with less experience were slightly less motivated prior to taking the course. Teachers who reported not ever taking a professional development course were less motivated than those who had taken courses before. In addition, those who had taken a course on cultural diversity had a higher level of motivation than those who had not.

The post course survey measured learners' attitude and satisfactions well as their view of the learning materials. Results of descriptive analysis of learners' responses to the post-survey are summarized in Table 3 above. As Table 3 shows. There is a positive increase in motivation across several of the areas, which are highlighted. The questions focused on attention, including numbers two, six, seven, ten and sixteen all showed very positive increases. This suggests that the inclusion of motivational components could have positively impacted the attention of the learners throughout the course. Question four directly measured learners' satisfaction. Results show a rather large increase, suggesting that satisfaction was also positively impacted. Several of the other questions (including 3, 4, 5, 8 and 17) showed increases as well, which included the confidence and relevancy areas of the ARCS model.

To take these results a step farther, an ANOVA test was run to explore any significant differences between the experimental and control groups in the above-mentioned areas. Table 4 below reflects the three areas in which significant differences were found between the two groups. Please note that this first item is slightly above the threshold for significant difference, which was .050, therefore it is very close to being significant. I felt that it was close enough to include it in the table. The first item refers to the learners' attention level, and the other two refer to the relevancy component of ARCS. There were no significant differences in any other areas.

Survey Item		Sum of Squares	Mean Square	df	F	Sig.
There was something interesting at the beginning of this lesson that got my attention.	Between Groups	1.786	1.765	1	4.658	.051
	Within Groups	4.571	.351	12		
	Total	6.357		13		
It is clear to me how the content of this material is related to things I already know	Between Groups	2.571	2.571	1	6.000	.031
	Within Groups	5.145	.429	12		
	Total	7.714		13		
There were explanations or examples of how people use the knowledge in this lesson	Between Groups	3.500	3.500	1	4.742	.050
	Within Groups	8.857	.738	12		
	Total	12.357		13		

Table 4. ANOVA Significant Differences

These additional positive results suggest the inclusion of motivational strategies tactics in the course may have had a positive impact on the learners' motivation, including attention and satisfaction.

The second question of this study asked if *providing motivational tactics enhanced the learning and engagement*. Analysis of the Blackboard LMS reporting metrics showed that learners in the experimental group tended to open the course home page (the page where they were able to access the modules) and course materials more than control group. Although the control group seemed to spend slightly more time inside the course, the experimental group accessed the materials at a higher rate. As Table 5 shows, students in

the experimental group also appeared to view the assignment folder, the instructor’s video introduction and other course resources more often than the control group did. One reason for this is that two of the participants in the experimental group accessed the course and then closed and revisited it several times. This would cause them to need to access the materials multiple times, on multiple computers. Other than that, there is no explanation for why the experimental groups access numbers are higher. Interestingly enough they did not seem to review the syllabus as often as the control group did. Table 5 summarizes the tracking data recorded by Blackboard Learn.

	<b>Control Group</b>	<b>Experimental Group</b>
Average time spent in course	5.77 hours	5.03 hours
# Of times course home page was opened	46	83
# Of times course modules page was opened	24	66
# Of times instructor’s introductory video was opened	4	11
# Of times additional resources was opened	1	15
# Of times assignment folder was opened	17	46
# Of times the syllabus was opened	14	4

*Table 5. Blackboard Reporting Data*

While it is difficult to make a judgment about the engagement of the learners with the learning materials by just using the tracking data, the results point to major differences in learners’ access.

In addition to engagement, this study aimed to determine if including motivational tactics improve student learning. Table 6 below summarizes the results of the test for both the experimental and control groups.

	<b>Control Group</b>	<b>Experimental Group</b>
Participant 1	50/50 (100%)	40/50 (80%)
Participant 2	50/50 (100%)	40/50 (80%)
Participant 3	50/50 (100%)	50/50 (100%)
Participant 4	50/50 (100%)	50/50 (100%)
Participant 5	40/50 (80%)	50/50 (100%)

Participant 6	50/50 (100%)	50/50 (100%)
Participant 7	50/50 (100%)	50/50 (100%)
AVERAGE	48.6/50 (97.14%)	47.14/50 (94.28%)

*Table 6. Course Assessment Data*

As Table 6 shows, students' scores were similar between the control and experimental groups. Only 1 participant in the experimental group scored lower than the participants in the control group. These results inspired the exploration of possible explanations. First, since learners did not take a pretest prior to completing the course module, there is no way to indicate if they did not already have the knowledge that was taught in the course. Thus, it is hard to know whether or not the learners already knew the questions asked in the assessment, and the course was simply a reinforcement of this knowledge. In addition, the study was limited in that there were only five questions in the assessment. If there were more questions, we may have seen more variations in the scores.

Table 7 below compares the assignment scores of the two groups. This assignment required the participants to respond to a brief case study, and present their answers to five separate questions. This included picking the best of three provided responses to the case as well as providing justification through several open-ended questions. A basic rubric was set up so that the participant would earn one point per correct response, for each of the five questions asked.

	<b>Control Group</b>	<b>Experimental Group</b>
Participant 1	5/5 (100%)	4/5 (80%)
Participant 2	5/5 (100%)	4/5 (80%)
Participant 3	1/5 (20%)	5/5 (100%)
Participant 4	1/5 (20%)	5/5 (100%)
Participant 5	3/5 (60%)	5/5 (100%)
Participant 6	5/5 (100%)	1/5 (20%)
Participant 7	2/5 (40%)	0/5 (0%)
AVERAGE	3.14/5 (63%)	3.43/5 (68%)

*Table 7. Course Assignment Data*

There is not a large discrepancy between the control group and the experimental group, in terms of performance. In addition, neither of the groups scored particularly high on this. This is due to the fact that several of the participants did not take the time to answer all five of the questions; instead, they simply presented which response to the case was best as opposed to selecting a response and providing justification. In the experimental group, one participant did not even attempt to answer any of the questions and one only answered one question, thus lowering the experimental group’s average significantly. Two people in the control group chose to answer only one question, lowering their group’s average as well. This lack of responses could be due to one of several reasons. First, the directions for the assignment may have been unclear in that the questions were presented on the second page of the case study. Some of the participants may not have seen them, or understood the importance in answering them. In addition, some of the learners may have been lazy and not wanting to provide a full response to the case.

After inspecting and comparing the responses of the participants who did answer the questions in full and provide justification, it is clear that the experimental group’s answers are in fact more detailed and provide a deeper level of understanding. Table 8 below offers the comparison of two sample responses.

Control Group Sample Response	Experimental Group Sample Response
<p>“The teacher, by giving the two students a chance to speak, is showing them that this is an acceptable behavior. She is encouraging them to use their social skills by letting them communicate about the seatwork. Response B is the most acceptable because the teacher is not</p>	<p>“a. How does the teacher’s behavior help children decide whether to reveal or conceal a cultural display. If she is accepting of the behavior, then they will reveal and share things from their culture. However, if she reprimands them or does not encourage sharing, then the students may feel ashamed of their background or be likely to hide it from the school setting.</p> <p>b. How is the teacher using the students’ linguistic, academic, and social skills? The teacher is, and probably not realizing it, encouraging all of these skills with her kids. She is encouraging them to share their ideas with</p>

<p>punishing the students for working together. She is allowing them to collaborate in a safe environment. By treating her students fairly, she is catering to each of their individual needs and differences.”</p>	<p>each other, and allowing them to be themselves and help one another. She is showing them that it is a good thing to help each other and share ideas across cultures.</p> <p>c. Which response has the greatest potential to advance student learning? I think that response letter B would be the best answer. This is because she is realizing the productivity that is occurring in her classroom, and that the boys are learning from each other/helping one another. She is not simply showing them that talking is okay, but that THIS type of talking is okay. B is the best response.</p> <p>d. How does teacher stance of treating everybody the same versus treating students fairly affect the learning opportunities of diverse students in classrooms? I think that while it would be nice to be able to teach all students fairly and equally, it is not always possible. Sometimes students need to be treated fairly but not necessarily equally. This is because students come from different backgrounds and cultures. Some students, like Luis need more assistance than students like Greg. By treating them both fairly, she is giving them the support that they need.”</p> <p>e. What would you do in this case? Why? I would apply response B in this situation. Once I can be sure that the boys are talking about the coursework, I will continue to monitor it and ensure that my other students do not think it is open talking time. I would probably want to follow up with both boys after the class. I would want Greg to know that he did a good thing by helping his neighbor and I would want to make sure that Luis is getting what he needs from me in terms of support and assistance.</p>
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*Table 8. Assignment Sample Response Comparison*

While there is clearly a difference in the level of response, not enough responses were collected to make a conclusion. If all learners had responded properly to the questions, then we could use a rubric to analyze the responses on a deeper level.

## **Discussion**

The purpose of this study was to explore whether incorporating motivational tactics and strategies into a pre-existing professional development course would increase learners’ attitudes and satisfaction, as well as their level of learning. The ARCS tactics and strategies seem to affect the learners’ attitude and satisfaction positively. In several areas, the experimental group showed higher levels of motivation, attention and satisfaction. However, we did not see a significant change in learning. This could mean that the



implementation of ARCS strategies and tactics do not necessarily change the performance, when the content of the course is already in place. It simply makes the course more appealing to the learners.

In addition, the motivational level of the participants who volunteered for this study was relatively high prior to completing the course. This could be due to the fact that these participants wanted to take the course, and volunteered to do so. It would be interesting to try this experiment with learners who did not volunteer and were in fact forced to complete the course. We may then see some differences. Also, because the study was conducted with such a small population, the data was limited. It would be interesting to conduct a similar study with a larger group of participants, and include all modules of the course as opposed to just one.

Lastly, due to not having a pre-test in place or evaluating the learners' pre-existing knowledge prior to them entering the course put us at a disadvantage. The course content, as well as the questions asked in the assessment, may not have challenged the participants enough. They may have already had this knowledge going into the course. It would be interesting to give this course to pre-service teachers or those that may not have been exposed to this content in their careers.

Although there were positive results with regard to motivation, we cannot say for sure whether implementing ARCS strategies and tactics will increase attention and satisfaction, as well as engagement and learning. Future studies should continue to explore the area of motivation with regard to adult learners. Researchers may want to consider utilizing a larger population of learners, including those that did not volunteer for the course, as well as implementing pre-course assessments to better gauge learning.

## Appendix

### Appendix A: Analysis of ARCS Tactics in the Course

ARCS Motivational Strategies	Tactics Present in Course	Recommended Tactics
<b>(A) Attention: Arouse and sustain a learner's curiosity and interest</b>		
1. Incongruity & Conflict – use of contradictions, playing “devils advocate”	-	<ul style="list-style-type: none"> <li>On course landing page - provided scenario with two teachers presenting a conflict briefly to introduce content and increase interest</li> </ul>
2. Concreteness – uses visual representations, anecdotes and biographies	<ul style="list-style-type: none"> <li>Some visual representations (graphic organizer, photos, cartoon) in PDF readings in each module</li> <li>Ladson's article in module 2 refers to personal experience, and video in module 2 provides biography/personal experience</li> <li>Video “Resolving Cultural Conflicts with Students” portrays real-world situation</li> <li>Videos from Hutchinson's class offer real-world classroom situation</li> </ul>	<ul style="list-style-type: none"> <li>Revised Power Points in each of the modules by improving the visuals and converted them into videos with voiceovers</li> <li>Provided more realistic examples of culturally responsive teaching</li> <li>Created animated video for introduction to course in Module 1</li> </ul>
3. Variability – change of tones, movements, media, format, layout and design, interaction patterns	<ul style="list-style-type: none"> <li>Offers some variation in materials (video, PDFs, articles, activities)</li> </ul>	<ul style="list-style-type: none"> <li>Transformed PDF readings into videos</li> <li>Introduced more variety in activity format</li> <li>Created animated video for introduction to course in Module 1</li> </ul>
4. Humor – use of puns, humorous analogies	-	(Not appropriate for this course)
5. Inquiry – uses problem-solving activities and	<ul style="list-style-type: none"> <li>There is some problem solving in the “Helping</li> </ul>	<ul style="list-style-type: none"> <li>Implemented real world case scenarios to ensure</li> </ul>

constructive practices	with Seatwork” vignette <ul style="list-style-type: none"> <li>Constructive practice is present in lesson plan assignment in module 3</li> </ul>	that each module had at least one real world situation presented
6. Participation – uses games, simulations, role plays	<ul style="list-style-type: none"> <li>Contains one vignette in module 3</li> </ul>	(This is addressed through the cases above)
<b>(R) Relevance: Link learner’s needs, interests and motives</b>		
1. Experience – tell learners how new learning will use existing skills, use analogies to relate current learning to prior experience, relate to learner interests	<ul style="list-style-type: none"> <li>Educator check-in activity provides learners with reflection on prior experiences</li> <li>Syllabus shows how course objectives line up with NC Professional Teaching Standards</li> </ul>	<ul style="list-style-type: none"> <li>Included the real world scenarios/case studies</li> <li>Updated copy of syllabus to reflect new course design/activities; rewrote some of the objectives to be more familiar to learners (personalized language)</li> </ul>
2. Present worth – explicitly state the current value of instruction	<ul style="list-style-type: none"> <li>In syllabus, explains the key questions/challenges educators are faced with and how course will explore them.</li> <li>Purpose of culturally responsive teaching is weaved slightly into course materials – including videos, PDF readings and articles – but worth to learners is not stated explicitly</li> </ul>	<ul style="list-style-type: none"> <li>Current value was re-worked into syllabus</li> <li>Activity added to module 3 to reflect worth of CRT</li> </ul>
3. Future usefulness – relate instruction to future goals	<ul style="list-style-type: none"> <li>Videos provide usefulness, from perspective of teachers in the video.</li> </ul>	<ul style="list-style-type: none"> <li>Discussed briefly in syllabus</li> <li>Incorporated into module 3 activity videos</li> </ul>
4. Need matching – gives students opportunity to achieve, exercising responsibility, authority and influence	<ul style="list-style-type: none"> <li>Students take responsibility for own learning in this course – delivery format section of syllabus presents this</li> </ul>	(Already addressed in the fact that it is an online self-directed module, and explained in syllabus)
5. Modeling – use enthusiasm, peer-modeling, etc.	<ul style="list-style-type: none"> <li>Video “Resolving Cultural Conflicts with Students” portrays real-world situation</li> </ul>	<ul style="list-style-type: none"> <li>Increased enthusiasm in instructor video</li> <li>Added activity in module 3 to reflect peer-modeling</li> </ul>
6. Choice – student choice	<ul style="list-style-type: none"> <li>Learner has some choice as to which of the articles</li> </ul>	(No more choice is needed; already addressed in course.)

	<p>and videos he/she wants to investigate in modules 2 &amp; 3</p> <ul style="list-style-type: none"> <li>• Learner can decide when to work on module, and for how long/what schedule to maintain</li> </ul>	
<b>(C) Confidence: Develop positive expectations for achieving success</b>		
1. Learning requirements – advise students of requirements (goals and objectives)	<ul style="list-style-type: none"> <li>• Goals and objectives of course/modules are provided</li> <li>• Syllabus provides requirements in terms of delivery system, prerequisites, and hours needed to complete course</li> <li>• Shows connection to NC Professional Teaching Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Criteria has been explicitly stated in syllabus with regard to assignments, requirements and CEU credit</li> <li>• Reorganized individual module content to reflect assessment being final activity in each</li> <li>• Created a discussion forum which lists frequently asked questions as well as allows learners to post any additional questions they may have</li> </ul>
2. Difficulty – sequence activities in increasing difficulty	<ul style="list-style-type: none"> <li>• Modules build on each other, each one more difficult as learner progresses</li> </ul>	<ul style="list-style-type: none"> <li>• Deleted the “Constructivism” activity from module 1. This was not really addressed in module 1 and is very difficult.</li> </ul>
3. Expectations – use metacognition to forecast outcomes based upon effort; set realistic goals	<ul style="list-style-type: none"> <li>• Provided schedule of course to assist learners in goal setting</li> <li>• Provides course goal/objectives</li> <li>• Lesson plan activity includes scaffolding and reminders to assist learners</li> </ul>	<ul style="list-style-type: none"> <li>• Stated explicitly in syllabus</li> </ul>
4. Attributions – encourage students to internalize locus of control by attributing success to themselves	<ul style="list-style-type: none"> <li>• Course syllabus touches briefly on self-directed learning</li> </ul>	<ul style="list-style-type: none"> <li>• Provide positive feedback at the end of assessments and module assignments</li> </ul>

5. Self-Confidence – foster using confidence strategies	-	<ul style="list-style-type: none"> <li>• Provide positive feedback after completing assignments</li> <li>• Provide sample responses for the various assignments so that they can view appropriate responses</li> <li>• Incorporated confidence into instructor’s introductory video</li> </ul>
<b>(S) Satisfaction</b>		
1. Natural Consequences – allow students to use newly acquired skills in realistic, successful settings	-	<ul style="list-style-type: none"> <li>• Add practice scenario to module 3 in which learner applies what they have learned by responding to a realistic case study</li> </ul>
2. Unexpected rewards – include student expectation of extrinsic reward (for boring tasks) or use a surprise reward	<ul style="list-style-type: none"> <li>• Feedback provided at the end of the assessments for correct/incorrect responses</li> </ul>	(N/A- already addressed in course as much as possible)
3. Positive outcomes – provide feedback, praise, personal attention, motivation – immediately	<ul style="list-style-type: none"> <li>• Correct answers provided after learner completes assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Provided sample responses to course assignments</li> </ul>
4. Avoidance of negative influences – don’t use threats, surveillance practices and total external evaluation	<ul style="list-style-type: none"> <li>• No negative influences found in course</li> </ul>	(Already addressed; no changes necessary)
5. Scheduling – repeat reinforcement at fluctuating, non-predictable intervals	-	<ul style="list-style-type: none"> <li>• This will be applied in the feedback from the assessments or activities.</li> </ul>

## Appendix B: Pre-Course Motivational Survey

- 1 (or A) = Not true  
2 (or B) = Slightly true  
3 (or C) = Moderately true  
4 (or D) = Mostly true  
5 (or E) = Very true

1. The things I will learn in this course will be useful to me.
2. I feel confident that I will do well in this course.
3. I have to work hard to succeed in this course.
4. Whether or not I succeed in this course is up to me.
5. I do not think I will benefit much from this course.

6. The content of this course relates to my expectations and goals.
7. To accomplish my goals, it is important that I do well in this course.

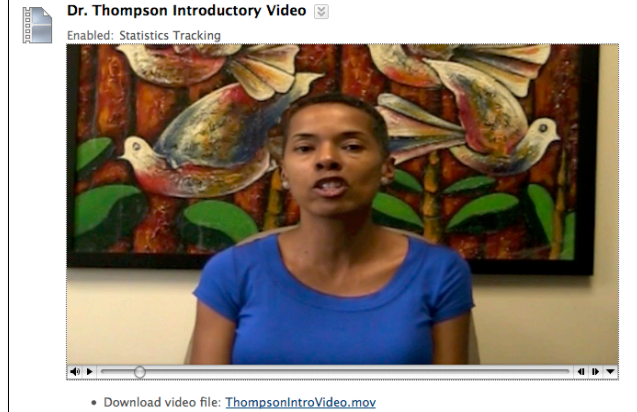
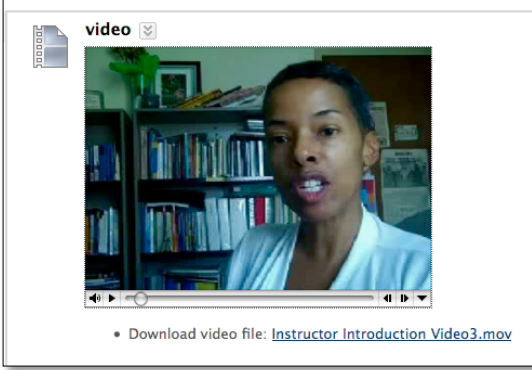
### Appendix C: Post-Course Instructional Materials Survey

- 1 (or A) = Not true  
 2 (or B) = Slightly true  
 3 (or C) = Moderately true  
 4 (or D) = Mostly true  
 5 (or E) = Very true

1. When I first looked at this lesson, I had the impression that it would be easy for me.
2. There was something interesting at the beginning of this lesson that got my attention.
3. After reading the introductory information, I felt confident that I knew what I was supposed to learn from this lesson.
4. Completing the exercises in this lesson gave me a satisfying feeling of accomplishment.
5. It is clear to me how the content of this material is related to things I already know.
6. Many of the pages had so much information that it was hard to pick out and remember the important points.
7. These materials are eye-catching.
8. There were stories, pictures, or examples that showed me how this material could be important to some people.
9. Completing this lesson successfully was important to me.
11. The quality of the writing helped to hold my attention.
11. This lesson is so abstract that it was hard to keep my attention on it.
12. As I worked on this lesson, I was confident that I could learn the content.
13. I enjoyed this lesson so much that I would like to know more about this topic.
14. The pages of this lesson look dry and unappealing.
15. The content of this material is relevant to my interests.
16. The way the information is arranged on the pages helped keep my attention.
17. There are explanations or examples of how people use the knowledge in this lesson.

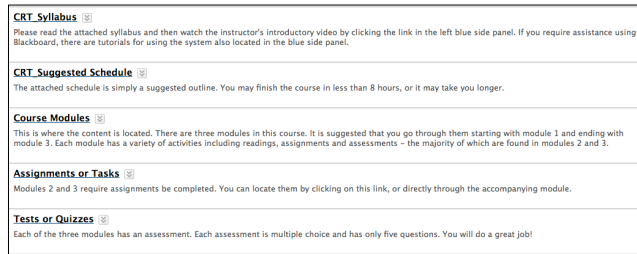
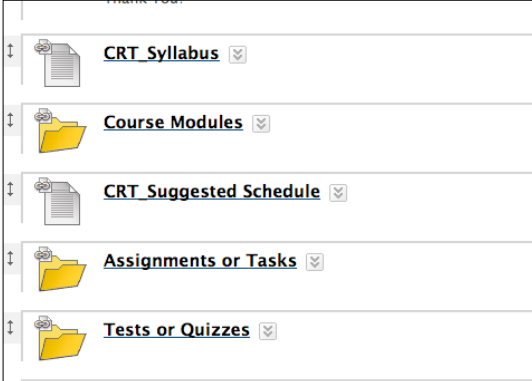
### Appendix D: Course Revisions

Original Course	Revised Course
Instructor’s introductory video was very small and dark.	The revised video is larger and brighter. It includes music and will better get the learners excited about the materials and content. The instructor’s credibility is briefly introduced in this video.



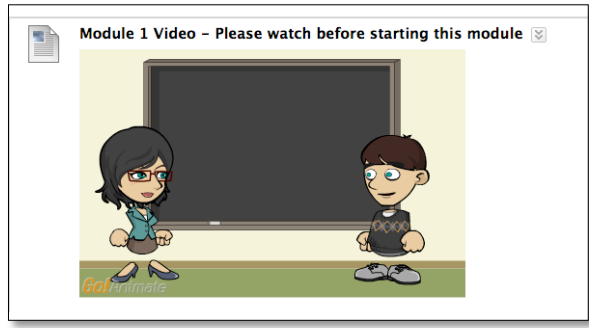
Original landing page had very little directions or instructions to learners. It simply listed items.

Revised landing page has step-by-step instructions so that learners know what needs to be completed, and in what order.



N/A - No introductory video or scenario present in the course.

Introductory video between two teachers to create interest and briefly introduce the concept of culturally responsive teaching



Original syllabus was not chunked very well. There was too much text. Objectives were written very formally.

Revised and updated syllabus. Removed unnecessary information and re-wrote objectives to reflect more personalized language

## Syllabus

[Course Information](#) | [Course Goals & Objectives](#) | [Main Topics & Required Readings](#) | [Instructor Information](#) | [Course Requirements](#) | [Assessment Strategies](#) | [Other Requirements](#)

### Course Information

Course title Culturally Responsive Teaching (CRT); What, Why, and How

Course number TBD

Course description The demographic composition of the U.S. is changing rapidly. By 2050, researchers predict that nearly half of the population will be comprised of people reflecting a host of cultural, linguistic, racial, religious, and ethnic diversity. The challenge and promise for educators is in developing inclusive environments that explore and integrate their students' cultures and prior experiences into instruction that demonstrates a respect for and deep understanding of students' cultural, social, and academic experiences. This course explores several key questions: How do we, as teachers, prepare ourselves to effectively reach students whose cultural backgrounds and experiences may differ from our own? How can we implement culturally responsive teaching in our classrooms? How can we ensure that all students are actively involved and valued in the educational process?

Delivery Format This is a self-directed learning course. Self-directed course is defined as a learning environment in which all learning activities are controlled by the learner. As a learner in this course you will:

- Control all aspects of your learning, from the time spent on the materials to learning pace, to the sequence of the instruction and instructional materials.
- Interact primarily with the content of the course. Although if you wish you could create your own social network for communication and interaction with your peers and other professionals about the content of the course no instructor or facilitator will monitor your interactions with others.
- Monitor your achievement of course goals and objectives, by engaging in periodic and self-directed assessment strategies embedded in the course.
- Determine the conditions under which you will be working to achieve the objectives.

## Introduction to Culturally Responsive Teaching Watson School of Education PDS Course Syllabus

### Course Information

Course title Introduction to Culturally Responsive Teaching (CRT)

Course number TBD

Course description The demographic composition of the U.S. is changing rapidly. By 2050, researchers predict that nearly half of the population will be comprised of people reflecting a host of cultural, linguistic, racial, religious, and ethnic diversity. The challenge and promise for educators is in developing inclusive environments that explore and integrate their students' cultures and prior experiences into instruction that demonstrates a respect for and deep understanding of students' cultural, social, and academic experiences. This course explores several key questions: How do we, as teachers, prepare ourselves to effectively reach students whose cultural backgrounds and experiences may differ from our own? How can we implement culturally responsive teaching in our classrooms? How can we ensure that all students are actively involved and valued in the educational process?

Delivery Format This is a self-directed learning course. Self-directed course is defined as a learning environment in which the learner controls all learning activities.

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Control all aspects of your learning, from the time spent on the materials to learning pace, to the sequence of the instruction and instructional materials.

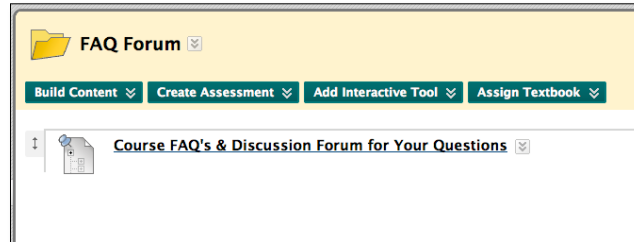
Interact primarily with the content of the course. Although if you wish you could create your own social network for communication and interaction with your peers and other professionals about the content of the course no instructor or facilitator will monitor your interactions with others.

Monitor your achievement of course goals and objectives, by engaging in periodic and self-directed assessment strategies embedded in the course.

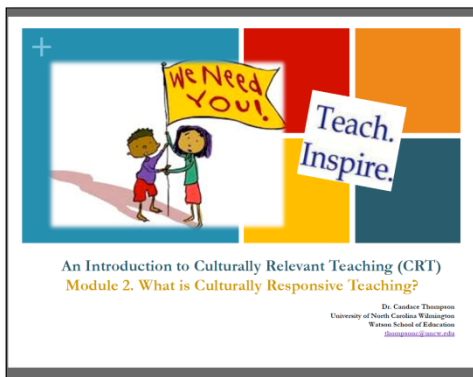
Determine the conditions under which you will be working to achieve the objectives.

None

Added a Frequently Asked Questions forum to the course. This lists some of the more frequent questions, and answers, that relate to this course and to Blackboard. In addition, it allows learners to ask their own questions.



Modules 2 and 3 included PowerPoint decks without voice-overs; learners were expected to read through them to learn the content.



Updated the materials by better organizing and sequencing the content. I removed a lot of the text and recorded voiceover to supplement the slide's visuals. This was converted into a video for learners to watch.



Prior Power Points had a lot of text and

Revised Power Points incorporate better sequencing



no pictures or representations.

### + The Language of Culture, Curriculum & Practice in Schools

#### Dominant Culture

■ The cultural group whose values and behaviors have been adopted by most institutions in society, such as schools. In the U. S., the dominant group includes the middle class, white, English-speaking, heterosexual Christian culture with its historical roots in Europe.

#### Hidden Curriculum

■ The informal, unspoken yet assumed curriculum that defines the behaviors and attitudes of students and teachers in classrooms and schools.

#### Constructivism:

❖ A theory and practice that states that a learner acquires knowledge on the basis of an active interaction between new information and the learner's prior knowledge and experience. Approach used in CRT.

#### Culturally Responsive Teaching (CRT)

❖ A research-based teaching method that recognizes students' cultural strengths and experiences and use them as tools to achieve mastery of new knowledge and skills. Also known as Culturally Relevant Pedagogy and Culturally Responsive Pedagogy.

and chunking of materials, and incorporated photographs and examples to increase attention and

### + The Language of Culture, Curriculum & Practice in Schools

#### Constructivism:

❖ A theory and practice that states that a learner acquires knowledge on the basis of an active interaction between new information and the learner's prior knowledge and experience. Approach used in CRT and in this course.



relevancy.

Module 1 PPT offered no instructions

Added instructions to the beginning, as well as set the expectation that the following content would be required for the assessment.

+

### Introduction

- This PowerPoint deck will introduce you to some commonly used terminology, as it relates to Culturally Responsive Teaching
- This module will serve as a short introduction to the course
- Please take some time to review the terminology on the following slides
- There will be a short assessment in this module which will ask you questions related to the following content

No sample responses were previously provided for learners upon completion of activities and assignments.

Sample responses were added to the course, to provide feedback to the learner after submitting an assignment.

	<p>Module 2 Helping With Seatwork</p> <p>Below are possible example responses to the issues for consideration:</p> <p>Response B is the better response choice. This choice allows the students to continue their productive discussion, thus showing that she is open to cultural exchanges in her classroom.</p> <p>By allowing the two students to talk freely about the math problem, she is showing the children that this cultural display is okay. Had Ms. Chavez asked them not to talk, Luis would not have been able to learn the math problem, and the boys would be fearful to speak out and help each other in the future.</p> <p>Ms. Chavez is promoting their academic, social and linguistic skills by allowing them to support each other in the classroom.</p> <p>By treating her students fairly, as opposed to treating them all the same, Ms. Chavez is helping the students. Not all students are exactly the same, so they require different scaffolding and support in the classroom.</p> <p>In this situation, it would be appropriate to allow the students to continue to help each other. It would also be a good idea to follow up with Luis to determine his ability to understand the work in other subject areas. He may require some additional support.</p>
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### Appendix E: Raw Survey Data

		Not True	Slightly True	Moderately True	Mostly True	Very True
The things I will learn in this course will be useful to me	<b>Control</b>	0 (0%)	0 (0%)	0 (0%)	6 (85.7%)	1 (14.3%)
	<b>Experimental</b>	0 (0%)	1 (14.3%)	4 (57.1%)	1 (14.3%)	1 (14.3%)
I feel confident that I will do well in this course	<b>Control</b>	0 (0%)	0 (0%)	1 (14.3%)	5 (71.4%)	1 (14.3%)
	<b>Experimental</b>	0 (0%)	0 (0%)	2 (28.6%)	4 (57.1%)	1 (14.3%)
I have to work hard to succeed in this course	<b>Control</b>	1 (14.3%)	1 (14.3%)	1 (14.3%)	4 (57.1%)	0 (0%)
	<b>Experimental</b>	1 (14.3%)	0 (0%)	0 (0%)	4 (57.1%)	2 (28.6%)
Whether or not I succeed in this course is up to me	<b>Control</b>	0 (0.0%)	0 (0.0%)	1 (14.3%)	4 (57.1%)	2 (28.6%)
	<b>Experimental</b>	0 (0%)	0 (0%)	1 (14.3%)	1 (14.3%)	5 (71.4%)
I do not think I will benefit much from this course	<b>Control</b>	4 (57.1%)	1 (14.3%)	2 (28.6%)	0 (0%)	0 (0%)
	<b>Experimental</b>	5 (71.4%)	2 (28.6%)	0 (0%)	0 (0%)	0 (0%)
The content of this course relates to my expectations and goals	<b>Control</b>	0 (0%)	0 (0%)	5 (71.4%)	1 (14.3%)	1 (14.3%)
	<b>Experimental</b>	0 (0%)	0 (0%)	4 (57.1%)	2 (28.6%)	1 (14.3%)
To accomplish my goals, it is important that I do well in this course	<b>Control</b>	0 (0%)	0 (0%)	4 (57.1%)	2 (28.6%)	1 (14.3%)
	<b>Experimental</b>	1 (14.3%)	0 (0%)	2 (28.6%)	3 (42.8%)	1 (14.3%)

		Not True	Slightly True	Moderately True	Mostly True	Very True
The things I will learn in this course will be useful to me	Control	0 (0%)	3 (42.8%)	3 (42.8%)	1 (14.3%)	0 (0%)
	Experimental	0 (0%)	2 (28.6%)	3 (42.8%)	2 (28.6%)	0 (0%)
When I first looked at this lesson, I had the impression that it would be easy for me	Control	0 (0%)	0 (0%)	5 (71.4%)	1 (14.3%)	1 (14.3%)
	Experimental	0 (0%)	0 (0%)	0 (0%)	6 (85.7%)	1 (14.3%)
There was something interesting at the beginning of this lesson that got my attention	Control	5 (71.4%)	2 (28.6%)	0 (0%)	0 (0%)	0 (0%)
	Experimental	6 (85.7%)	1 (14.3%)	0 (0%)	0 (0%)	0 (0%)
After reading the introductory information, I felt confident that I knew what I was supposed to learn	Control	0 (0%)	0 (0%)	3 (42.8%)	3 (42.8%)	1 (14.3%)
	Experimental	0 (0%)	0 (0%)	2 (28.6%)	2 (28.6%)	3 (42.8%)
Completing the exercises in this lesson gave me a satisfying feeling of accomplishment	Control	0 (0%)	1 (14.3%)	2 (28.6%)	3 (42.8%)	1 (14.3%)
	Experimental	0 (0%)	0 (0%)	0 (0%)	6 (85.7%)	1 (14.3%)
It is clear to me how the content of this material is related to things I already know	Control	0 (0%)	0 (0%)	2 (28.6%)	5 (71.4%)	0 (0%)
	Experimental	0 (0%)	0 (0%)	0 (0%)	3 (42.8%)	4 (57.1%)
Many of the pages had so much information that it was hard to remember the important parts	Control	3 (42.8%)	1 (14.3%)	2 (28.6%)	1 (14.3%)	1 (14.3%)
	Experimental	6 (85.7%)	0 (0%)	0 (0%)	1 (14.3%)	0 (0%)
These materials are eye-catching	Control	0 (0%)	2 (28.6%)	2 (28.6%)	3 (42.8%)	0 (0%)
	Experimental	0 (0%)	0 (0%)	2 (28.6%)	5 (71.4%)	0 (0%)
There were stories or examples that showed me how this material could be important to some people	Control	0 (0%)	1 (14.3%)	2 (28.6%)	3 (42.8%)	1 (14.3%)
	Experimental	0 (0%)	0 (0%)	1 (14.3%)	5 (71.4%)	1 (14.3%)
Completing this lesson successfully was important to me	Control	0 (0%)	0 (0%)	1 (14.3%)	5 (71.4%)	1 (14.3%)
	Experimental	1 (14.3%)	0 (0%)	1 (14.3%)	5 (71.4%)	0 (0%)
The quality of the writing helped to hold my attention	Control	0 (0%)	1 (14.3%)	3 (42.8%)	3 (42.8%)	0 (0%)
	Experimental	0 (0%)	0 (0%)	3 (42.8%)	4 (57.1%)	0 (0%)
This lesson is so abstract that it was hard to keep my attention on it	Control	6 (85.7%)	1 (14.3%)	0 (0%)	0 (0%)	0 (0%)
	Experimental	6 (85.7%)	0 (0%)	1 (14.3%)	0 (0%)	0 (0%)
As I worked on this lesson, I was confident that I could learn the content	Control	0 (0%)	0 (0%)	1 (14.3%)	1 (14.3%)	5 (71.4%)
	Experimental	0 (0%)	0 (0%)	0 (0%)	1 (14.3%)	6 (85.7%)
I enjoyed this lesson so much that I would like to know more about this topic	Control	0 (0%)	0 (0%)	4 (57.1%)	3 (42.8%)	0 (0%)
	Experimental	0 (0%)	1 (14.3%)	1 (14.3%)	4 (57.1%)	0 (0%)
The pages of this lesson look dry	Control	3 (42.8%)	3 (42.8%)	1 (14.3%)	0 (0%)	0 (0%)

and unappealing	<b>Experimental</b>	<b>5</b> <b>(71.4%)</b>	<b>1</b> <b>(14.3%)</b>	<b>1</b> <b>(14.3%)</b>	<b>0</b> <b>(0%)</b>	<b>0</b> <b>(0%)</b>
The content of this material is relevant to my interests	<b>Control</b>	<b>0</b> <b>(0%)</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(14.3%)</b>	<b>5</b> <b>(71.4%)</b>	<b>1</b> <b>(14.3%)</b>
	<b>Experimental</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(14.3%)</b>	<b>1</b> <b>(14.3%)</b>	<b>5</b> <b>(71.4%)</b>	<b>0</b> <b>(0%)</b>
The way the information is arranged on the pages helped keep my attention	<b>Control</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(14.3%)</b>	<b>4</b> <b>57.1%</b>	<b>2</b> <b>(28.6%)</b>	<b>0</b> <b>(0%)</b>
	<b>Experimental</b>	<b>0</b> <b>(0%)</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(14.3%)</b>	<b>5</b> <b>(71.4%)</b>	<b>0</b> <b>(0%)</b>
There were explanations or examples of how people use the knowledge in this lesson	<b>Control</b>	<b>0</b> <b>(0%)</b>	<b>2</b> <b>(28.6%)</b>	<b>2</b> <b>(28.6%)</b>	<b>2</b> <b>(28.6%)</b>	<b>1</b> <b>(14.3%)</b>
	<b>Experimental</b>	<b>0</b> <b>(0%)</b>	<b>0</b> <b>(0%)</b>	<b>0</b> <b>(0%)</b>	<b>5</b> <b>(71.4%)</b>	<b>2</b> <b>(28.6%)</b>

*Table 12. Post Course Motivational Survey Data*

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