Infusing Creativity and Design into a University Faculty Mentor Process: Means and Ends

Lori A. Brunner
Iowa State University, lbrun@iastate.edu

Katherine Richardson Bruna
Iowa State University, krbruna@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/ad_conf
Part of the Art Education Commons, and the Higher Education Commons

Recommended Citation
http://lib.dr.iastate.edu/ad_conf/9

This Conference Proceeding is brought to you for free and open access by the Art and Design (1919–2012) at Iowa State University Digital Repository. It has been accepted for inclusion in Art and Design Conference Proceedings, Presentations and Posters by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Infusing Creativity and Design into a University Faculty Mentor Process: Means and Ends

Abstract
“So you have a design degree, why are you interested in the area of curriculum and instructional technology?” For me I see so many connections and important contributions to both design and education, in addition to the valuable lessons learned by taking an interdisciplinary approach to projects. This case study provides one example of how design and education, together, can produce exciting processes and results that help inform both design and education scholars.

Disciplines
Art Education | Higher Education

This conference proceeding is available at Iowa State University Digital Repository: http://lib.dr.iastate.edu/ad_conf/9
Infusing Creativity and Design into a University Faculty Mentor Process:
Means and Ends

I. Background and Introduction

The Focus

“So you have a design degree, why are you interested in the area of curriculum and instructional technology?” For me I see so many connections and important contributions to both design and education, in addition to the valuable lessons learned by taking an interdisciplinary approach to projects. This case study provides one example of how design and education, together, can produce exciting processes and results that help inform both design and education scholars.

In this paper I present a detailed account of my experiences as a graduate student mentor in a university faculty mentor program. I first set the background and introduction of the case study by presenting information on the focus, the context, and the players (myself and my mentee). Next, I provide a literature review on the topics of graphic expression and a model of motivation, the ARCS model (attention, relevance, confidence, and satisfaction) by Keller (1987). These two areas establish the theoretical framework in which I then convey the results of the mentor experience. Following the literature review, I include a brief description of the methodology, which is then followed by a report of the results or events that occurred during the semester. I conclude this paper
with some parting remarks on the nature of the mentor-mentee relationship, and poignant impressions of the mentor process.

Graphic expression is the conversion of thoughts, ideas, or concepts into symbols that have meaning. It assists the designer in communicating, learning, and creating (Hanks & Belliston, 1990). *Graphic expression* and *meaning*—these two words capture the essence of my case study involving a university faculty member and myself, a graduate student in Curriculum and Instructional Technology with a background in design-related fields, as I mentored her in the integration of technology into her professional endeavors. Through assisting the mentee in translating her thoughts, ideas, and concepts into symbols that have meaning, the importance of creativity and design in this process became both the *means* and the *ends* of achieving the mentee’s goal, as well as the underlying theme in this semester-long case study.

Graphic expression provided the *means* by which I focused the motivational aspects of the mentor process. Using the ARCS\(^1\) motivation model by J. Keller (1987), I provide an account, using the case study methodology, of my experiences in this semester-long mentor process. While both my mentee and I wish to continue our work together in this project after the semester is finished, the products or *ends* are also tied closely to the infusion of graphic expression in this collaborative experience. My faculty mentee has a dynamic artifact that showcases herself to her colleagues, students, and other professional acquaintances, which was the goal she set for herself at the beginning of this mentor process.

*The Context*

---

\(^1\) ARCS stands for attention, relevance, confidence, and satisfaction.
This case study of technology integration into university faculty development is one instance in an ever-increasing collection of successful stories\(^2\) stemming from an initiative that began in 1991. The Faculty Mentoring Program (FMP) at Iowa State University was created within the Department of Curriculum and Instruction to meet the growing challenges of creating meaningful integration of technology into the curricula. Meaningful integration of technology into the curricula was not just focused in the K-12 levels—the faculty training these future teachers also needed to experience this technology infusion (Thompson, in press). Prior to the FMP formation, previous attempts at offering workshops on technology integration the university faculty proved not to be the best alternative for a significant, lasting, and meaningful experience. The workshops were not individualized, scheduling was always a struggle, and deciding on a workshop topic to address all faculty’s needs was difficult (Thompson, in press). Coupled with this was the fact that the department had a valuable resource already at their disposal—graduate students in Curriculum and Instructional Technology. Thus, the FMP was founded.

The FMP is implemented through a graduate level seminar course, *Technology in Teacher Education*. The seminar includes readings and discussions on issues in technology and teacher education, along with a field component. The field component is where the graduate students (the mentors) in the course are paired with a Curriculum and Instruction faculty member (the mentees). This pairing is held for a semester in duration. Faculty members volunteer to be mentees in the FMP and include a brief description or topic they would like to focus on for the semester. At the beginning of the semester the

\(^2\) More than 100 graduate students have worked as mentors and more than 50 faculty members have participated in the FMP (http://www.public.iastate.edu/~mstar/mentor/about_program.htm, retrieved November 12, 2005).
seminar instructor assists in the matchmaking exercise, taking into consideration the level of technology expertise of the graduate student, the particular project or goal of the faculty member, the subject area of the faculty and the graduate student, and general compatibility issues between the two individuals (Thompson, in press). Once the pairings are in place, each group is required or urged to meet for one hour each week in the faculty member’s office. To kick off the semester a celebratory meeting (usually a luncheon) is held, offering an opportunity to meet all faculty and graduate students participating in the year’s FMP. This meeting allows everyone to hear what each pair is planning on accomplishing during the semester, as well as establishing a learning community albeit it is only for a semester. A final group celebratory meeting is held at the end of the semester, where each pair is able to share some of their experiences and artifacts with their peers.

The Players

Myself the mentor

As the introduction mentions, my background is in design and technology-related fields. I have worked for a number of years as a planner in local governments, in addition to doing some consulting work. It was in both my planning education and practical experiences that I was introduced to so many exciting and powerful applications of technology. I did not learn all of the technology overnight. It was a gradual process that always originated from the problem at hand. Given a certain problem, how might we address it, and then proceed to solve it? What would be most effective and efficient way to do this? Technology was never used just for the sake of using something novel. Inherent in my technology experiences was a realization that communication via graphics
and text was crucial for a local government planner—I find later that this is the probably the single most important aspect in any discipline and is a skill that all professionals should have. In addition to my local government experiences, I also was invited to teach an undergraduate planning course as a visiting lecturer one semester. This course, *Graphic and Written Communications for Planners*, exposed students to a number of different computer applications and allowed students to demonstrate their newly acquired skills in authentic projects. I had been a teaching assistant in this course during my masters program of study. While graphics was a strong focus in my planning endeavors, I also had the opportunity to be the consultant for a city’s update to their comprehensive plan\(^3\). It was here that I combined my skills of writing with graphic expression to clearly present the city’s vision, goals, objectives, and strategies for the future.

While I found planning rewarding, I also realized that I wanted to do more in the design-related fields, so I pursued and completed a master’s of fine arts. Here I became interested in the design process and learning theories. This led me to a Ph.D. program where my emphasis is in Curriculum and Instructional Technology. To sum up my experiences, I see myself mediating between design, problem solving, technology and education. All work together and have provided me a rich tapestry that influences my thoughts, actions, things, and language.

*The faculty mentee*

My faculty mentee, Dr. Katherine Richardson Bruna is an assistant professor in Curriculum and Instruction, whose research is in the areas of sociocultural studies of education and multicultural teacher education. She has traveled extensively, and her

---

\(^3\) Comprehensive plans outline a community’s focus for its future in a number of different areas such as transportation, housing, economic development, and public safety. These plans also describe the current issues and existing conditions of the community.
travel experiences are tightly woven into her research, teaching, and outreach activities. She has captured numerous images from her experiences, and these images have provided our mentor project a tremendous pool of textures, colors, and meanings. She notes,

These artifacts represent an approach to the intellectual journey deeply embedded in the goal of self-actualization, of coming to wholeness, through intentional integration of all endeavors of mind, body, and spirit. Infused into the act of teaching, this approach results in what bell hooks calls ‘engaged pedagogy’ (Richardson Bruna, retrieved December, 1, 2005. http://www.public.iastate.edu/~lbrun/index3.html).

Katherine’s interest for the semester was to learn Dreamweaver, a web authoring software, to develop her professional web site. She noted later in the semester, at first she was hesitant to do this, because she was concerned that this particular mode would not allow her to fully express her intellectual journey, and her integrated endeavors of mind, body, and soul. As I will discuss later in this case study, this integration became the key to our successful mentoring experience.

II. Literature Review

Why Motivation?

When there is no motivation to learn, there is no learning (Wlodkowski, 1985). However, this extreme is not frequently the case, because motivation is not an either/or condition. It is often present to some degree, but when motivation to learn is very low, it
is generally assumed that the potential learning achievement will to some extent be diminished. Wlodkowski (1985) notes some generalizations about adult learning theory, or andragogy. Adults are responsible people who seek to build their self-esteem through pragmatic learning activities in which their competence is enhanced. From this perspective Wlodkowski (1985) asserts that there are motivational theories that are more applicable to adult instruction than are others. These are psychological theories that embrace competence as a central assumption, such as attribution theory, achievement motivation theory, personal causation theory, social learning theory, and cognitive evaluation theory. All of these support the idea that human beings strive for understanding and mastery, and tend to be motivated when they are effectively learning something they value. One motivational model that embraces these tenets is the ARCS motivational model (Keller, 1987; Keller & Suzuki, 1988).

**ARCS Motivation Model**

Keller (1987; Keller & Suzuki, 1988) has developed a four factor macro-level theory to explain individual motivation. The theory was derived from a synthesis of many areas of research as it relates to human motivation. The ARCS model postulates that there are four factors in the motivation to learn, which include: 1) attention, 2) relevance, 3) confidence, and 4) satisfaction. In addition to defining the four factors, the model includes subcategories of motivational characteristics, and examples of strategies that stimulate or sustain each motivational element. Figure 1 provides a summary of the four factors of the ARCS model.

Insert Figure 1 about here.
The first element in the ARCS model of motivation to learn is *attention*. One must obtain and sustain a learner’s attention. In the learning process, a learner’s attention must be directed to appropriate cues, but before it can be directed, it has to be acquired. The motivational concern is for getting and sustaining attention. Keller (1987) notes that it is not too difficult to get attention, but sustaining it is often a challenge. The attention phase in the model includes those things that relate to curiosity (Berlyne, 1965; Maw & Maw, 1968), sensation seeking (Zuckerman, 1971), and other factors that help to explain how attention is obtained (Keller & Suzuki, 1988), and in some respects this is the easiest step in the motivational process. Our attention is aroused by things that are novel, surprising, or uncertain. Keller (1987) calls this type of attention strategy, *perceptual arousal*. In order to sustain attention, a deeper level of curiosity most be activated by creating a problem situation which can only be resolved by knowledge-seeking behavior. He calls this attention strategy, *inquiry arousal*. A third element in the attention phase is *variability*. While an instructor may use the same instructional approach (although very good in its own right) repeatedly, learners will still benefit from variation.

The second element or phase in the ARCS model is *relevance*. After the learner’s attention has been obtained, the learner is likely to wonder why he or she should be progressing in this particular direction or pursuing a given task. Before a learner can be motivated to learn, they will have to believe that the instruction is related to important personal goals or motives (Keller, 1987). There are both ends and a process aspect to relevance. The ends aspect is largely utilitarian. If the content of the instruction is perceived to be helpful in accomplishing important goals in the learner’s future, then he
or she is more likely to be motivated. Ends oriented relevance does not always have to be aimed at the future. People like to enhance their current view of themselves and their feelings of being important and accepted human beings. Keller terms this relevance as goal orientation. The other type of relevance strategies are process-oriented relevance and Keller (1987) terms these as motive matching strategies. These strategies refer more to the way in which something is taught than to the substance of what is taught. For example, people who are high in “need for achievement” enjoy defining goals and standards of excellence for themselves. They also like to have a great deal of control over the means of achieving the goal, and to feel personally responsible for success. They are often uncomfortable in group work, which requires consensus in planning, and shared responsibility for the results. In contrast, people high in “need for affiliation” enjoy being with other people in noncompetitive situations where they is more of an opportunity to establish friendly relationships. These two relevance strategies are not exclusive. Some individuals may be high in both of these motives. The third category of relevance strategies is familiarity, which is a blend of both ends and processes. At one level, familiarity can be as simple as including human interest language in textual information, or human figures in graphics. At a higher level, instructional material that confirms the learner’s preexisting beliefs and interests will be seen as relevant. Keller and Suzuki (1988) describe a simple but powerful way of building relevance is to stimulate personal involvement in the class.

The third category in the ARCS model is confidence. In addition to being interested and perceiving the relevance of instruction, learners have to believe that there is an acceptable probability of success before they will be highly motivated. In other
words, they have to have confidence. This does not mean that success has to be guaranteed, because people often enjoy a challenge. But, the challenge has to be within acceptable boundaries. There are several dimensions to confidence. Three of the most important, according to Keller and Suzuki (1987) are perceived competence, perceived control, and expectancy for success.

In *perceived competence*, people have a desire to feel competent and they are more motivated to engage in a task when they believe they have the competencies necessary to succeed. However, in learning situations people are often faced with the requirement to master new skills and knowledge in areas that they do not feel competent. Here a distinction is made between learners learning new tasks versus learners after mastering a task. In the former case learners should have the freedom to make mistakes without embarrassment, while in the latter case learners should be exposed to a degree of challenge or risk to bring out their best.

In *perceived control*, if people believe that the choices they make and the degree of effort they expend have a direct influence on the consequences of their behavior, then they will tend to be more confident about their behavior. Features in the instruction that promote feelings of personal control over outcomes will help develop confidence and persistence.

A third dimension of confidence is *expectancy for success*. This is similar to the self-fulfilling prophecy. When people believe that they can succeed at a task, they tend to exert greater effort which in turn leads to a higher rate of actual success. Keller and Suzuki (1988) note that this would be a trivial observation if it were not for the fact that people’s expectations often differ from the objective probabilities of success.
The fourth element in the ARCS model is *satisfaction*. If the outcomes of a learner’s efforts are consistent with their expectations, and if they feel good about the outcomes, then they are likely to remain motivated. Hence, the primary effect of Satisfaction is on continuing motivation. Satisfaction can result from extrinsic and intrinsic factors. Extrinsic factors include opportunities for advancement, certificates, and other material rewards. Intrinsic factors include feelings of self-esteem and achievement that result from interacting with other people, having their views heard and respected, and from successfully completing a meaningful learning activity (Keller, 1987). Keller outlines three categories of satisfaction strategies. They include: natural consequences, positive consequences, and equity. Natural consequences subcategory asks the question, “How can I provide meaningful opportunities for learners to use their newly acquired knowledge or skills?” The positive consequences subcategory asks, “What will provide reinforcement to the learners’ successes?” And, the equity subcategory looks at the question, “How can I assist the students in anchoring a positive feeling about their accomplishment (Keller, 1987, p. 6)?”

*Graphics and Knowledge Acquisition*

In addition to learning and motivation, the other important aspect of this case study concerns graphic expression. Graphic expression is the conversion of thoughts, ideas, or concepts into symbols that have meaning. It assists the designer in communicating, learning, and creating (Hanks & Belliston, 1990). Molitor, Ballstaedt and Mandl (1989) refer to text and pictures as media because they visualize parts of reality which are not immediately present or accessible in one’s direct experience. In presentational pictures, one can differentiate two kinds of pictures: 1) an illustration or an
optical arrangement on a surface area, which corresponds to an area of reality in the relevant aspects of perception. Examples of this are photos, sketches, and caricatures. 2) On the other hand, a visualization illustrates structures and relationships of the reality, which cannot be perceived under normal visual conditions. Examples of this are hierarchies, flow charts, and organizational schemata.

Pictures can support the comprehension process in many ways. Levin (1981) differentiates among four main *functions* of pictures, each corresponding roughly to certain processes of knowledge acquisition. A fifth function, decoration, does not contribute to knowledge acquisition, per se, but does serve to enhance a viewer’s visual experience.

- **Representation.** The picture overlaps the contents of a text. With reference to the text, the illustration repeats certain contents.

- **Organization.** The picture provides an organized, coherent, “macrostructure” of the text content. Visualizations, in which relations between key concepts of a text are depicted, offer more capacity for other aspects of text processing since the main relations of the text are quickly at hand in the picture.

- **Interpretation.** The picture illustrates text contents, which is difficult to understand (e.g., analogies, visual metaphors).
• **Transformation.** The picture offers mnemonically useful forms of recoding, being a kind of visual mnemonic (e.g., learning vocabulary in foreign language instruction, pictures provide a keyword or “hook”).

• **Decoration.** The picture solely serves to “beautify” the text and is not primarily of cognitive importance.

This visual language plays important roles in so many aspects and levels of our lives. As humans, we search for meaning and try to make sense of the things we come into contact with. Without graphic expression our words would not sing, our messages would remain unclear, or our directions may be misleading. It is the combination of text and graphics that offer us a more enriching experience as we try to make sense of our world.

**III. Methodology**

This study used the case study methodology to investigate and analyze my experiences during one semester in the ISU Faculty Mentoring Program. This particular methodology was selected to explore an in-depth investigation of a single instance (although it is part of a larger collection of mentoring experience instances). The case study provides an opportunity to apply a multi-method approach to a unique setting or event. Using a holistic approach to research, this approach rests on the assumption that understanding is increased by considering the entire entity rather than breaking it into its
individual parts. In addition, this methodology inherently has a temporal dimension—it shows changes that occur over time (Sommer & Sommer, 2002). This was especially important to the mentor experience, as I wished to document and describe the changes, along with the goal, final artifacts, and reflections of the experience. Also important in the validity of the case study methodology is to use multiple approaches that integrate the information obtained in case study through a process of triangulation. Thus, in this case study data collection sources included my mentor journal that included observation notes of the mentee’s learning activities as well as my own reflections of the mentor process. Other sources included an interview with the mentee, and trace measures or physical artifacts from the mentoring experience. These artifacts showcase both the process and the products of the semester.

IV. Results as Presented through Themes

In the following sections, descriptions of my mentor experiences are presented through the motivation phases of the ARCS model. These phases progress in a chronological manner, which accommodates the telling of this story from the beginning of the semester to the concluding weeks. In all of the ARCS phases, design became a central part of our actions and decisions; it became our language through which we found learning and teaching technology meaningful. Data used in analyzing and documenting the results of the mentor process include the case study notes of my weekly reflective journal, an interview with Katherine towards the end of the semester, and artifacts from the semester collaboration. These artifacts include pages from Katherine’s developing web site, digital files documenting the design process, e-mail messages between
Katherine and I, and organizational / project management pieces including the concept map for the web site development.

It is important to note that I did not start the mentor process knowing that I was going to follow the ARCS model. It was only after the program began that I came to realize how similar our experiences were to the ARCS framework in explaining the process.

Attention

The attention phase of the ARCS model includes those things that relate to curiosity, sensation seeking, and other factors that help explain how attention is obtained. The goal is to stimulate and sustain attention. There are three subcategories of the attention phase of the ARCS model—perceptual arousal, inquiry arousal, and variability (Keller, 1987). I began the mentor process by trying to capture Katherine’s attention first by getting her involved in beginning to “see” other web sites and asking her to find one’s that depict the feeling and style she was envisioning for her web site. This was the beginning of the visual exploration submersion. By asking Katherine to find, and then explain her preferences was good for me as well as for her I think. It provided a way of beginning to look at technology in a more meaningful way. It was a means of looking at technology through the lens of design. Let us see what is possible first; we can then later step through the process of creating a web page in Dreamweaver. This is perceptual arousal in action. Keller notes that perceptual arousal does not last long. It is activated by things that are novel, surprising, or uncertain. Novel may be the closest word to describe this part of our process. The internet and web sites are not new. People surf the web frequently now, but they do not necessarily “look” or analyze the design of these
pages. This initial search was an excellent way of getting Katherine’s attention. While her goal was learning how to develop web pages, the notion that a university faculty web site needed to be sterile was not something she was looking forward to for her web site design. Therefore, the web site search was beneficial in changing Katherine’s conceptions of a faculty member’s web site design. She quickly found a few sites that she liked for its use of rollovers, color, and general combination of text and graphics displayed on a page. Figure 2 depicts a sampling from one of these web sites.

In our next few weekly meetings our discussions centered on how we might go about making her web site feel like it was uniquely “Katherine”. I suggested that if she had images from her life that had meaning to her, we could incorporate them into the fabric of the site. She was excited about this idea and quickly found photos from her travels and surroundings that she had documented along the way. One such example of this was a teapot from Mexico sitting on a shelf in her office. Then, instead of seeing only the entire teapot, we began to discuss its parts, the patterns, and the colors of the object. This activity seemed transforming, as it seemed to open Katherine’s eyes to the details of objects and to see the beauty of the individual elements of design such as line, color, texture, and shape. Really, though, it seemed as if she already knew this, but just needed the confirmation that it was a worthy task. This emersion into the observation and awareness of her surroundings and the task of documenting and capturing these things touched on the areas of inquiry arousal. Inquiry arousal, according to Keller
is needed in order to sustain attention. This is a deeper level of curiosity that is resolved by knowledge-seeking behavior. As one might realize at this point, our conversations and mentoring were not technology-related. Instead they focused on design and several of the functions of pictures discussed earlier—representation, transformation, and interpretation.

Besides photos and images that Katherine was collecting for her web site, she also found different books that had meaning to her. One book in particular was a children’s book, *Hairs Pelitos*, by Sandra Cisneros, which she had in her office for when her children came to visit. She remarked on the vibrant colors and the interesting “swooshes”. Maybe, she said, we could incorporate some of the Cisneros swooshes in the web site. So we did just that. I experimented in another graphics software and provide a menu of different “swooshes” for her review. Also at this time we played with different text styles. I provided another menu of these for her review as well (see figure 3). This, then, provided enough variety in our design experiences to offer her variability—the third type of subcategory of attention, according to Keller (1987).

Relevance

Relevance became the central force in Katherine’s acceptance to integrate technology into her professional milieu. Keller (1987) defines relevance as when the learner wants to know why she/she should be progressing in a given direction or pursuing a given task. There are two subcategories—goal orientation and motive matching that is
important to discuss here. *Goal orientation* deals with the ends and is largely utilitarian. The question asked is “Does the instruction perceived to be helpful in accomplishing important goals in the learner?” As I mentioned previously, the most important part of the design of the web site from Katherine’s perspective was that it needed to be created in a way that reflected her entire self—mind, body, and spirit. To only include the mind, as is typical for faculty web sites was not appealing to Katherine. Our collaborative efforts focused mostly on *designing* this into the web site. Therefore, as our exchanges began and she embraced the fact that yes, we can develop a site in this manner, our design process seemed to accelerate. In the following e-mail passages, she describes some of these artifacts from her life.

Artifacts! The Anthropology that Breaks Your Heart book is meaningful to me in terms of approaches to research, so maybe that should go somewhere on the Research page. The image of the Diosa de las Americas makes me think of how I approach Teaching and the Alquimista book has to do with journeys (Travel). If pieces of these end up on these pages, great! If not, they'll be perfect wherever they find a home.

KRB –Sept 29, 2005

More! These are all from the Jerome book which is really meaningful to me in terms of my childhood. So, if these could find a place on that page (Autobiography) somehow, that would be
In the subcategory, motive matching, Keller (1987) discusses two types, the need for achievement, and the need for affiliation. Our mentor experience focused more in the latter. The *need for affiliation* is when a person enjoys being with other people in noncompetitive situations and establishes friendly relationships. As I write in my weekly journal, I remember one of our weekly sessions struck me quite sharply. In a reflective moment Katherine noted how, in many respects, the mentor process brings together people rather quickly, and the intensity of the relationship seems to actually progress faster than an in a “normal” exchange between colleagues or workplace acquaintances. This was especially the case in our situation as Katherine was sharing with me (since I was helping her with the design and technical aspects of the web site) personal narratives that would not typically be exchanged with such a “new” relationship. She was right, and I appreciated her reflection, acceptance, and vulnerability. As I began to ponder this more after our meeting had ended, I thought that maybe I might reciprocate and share a part of my other side to her, too. By chance, I had recently accepted someone’s request to be interviewed by a student whose assignment was to write an ethnographic paper on multicultural education. When the assignment was completed the student provided me with a copy of the paper on their interpretation of me (based partly on what I shared in the interview and partly on the student’s analysis of this exchange) and the influences of my environment. I had been carrying this paper around with me for awhile, as I began to
absorb and reflect on it. Suddenly, the idea of sharing this with Katherine seemed so logical, since she is a multicultural education scholar and my mentee; maybe she might like to read this. Thus, the relationship that we have developed over the semester, I believe, has been good for both of us and provided an element to the mentor process that neither of us probably would have anticipated previously—or at least I had not.

Again, it was not technology that became the central force, but rather the affiliation with others and the notion that connecting with others can be so powerful. I say it was so powerful, but it was also quite different from what my previous motive matching tendencies tended to be. Keller (1987) describes the other type of motive matching as the need for achievement. Here the individual enjoys defining goals and standards for themselves. He/she likes control over the means of achieving the goal and is generally uncomfortable in group work. So, in many respects, this mentor process has changed my perceptions of myself, working with others, the need for others’ in building a community of learners, and the way a scholar approaches the different parts of one’s work and personal lives.

Confidence

There are two aspects to address when discussing the results in the confidence phase of the change process. First, there is a technical confidence in being able to manipulate the web development software. Creating a site, adding photos and text to a web page, controlling the background color of a page, and adding links are all important technical skills necessary to web page development. In Keller’s (1987) terms, this is the subcategory of perceived confidence. Here, learners are more motivated when they believe that they have the competencies necessary to succeed. The technical confidence
of developing a web site is a gradual process and will continue to progress for Katherine past the end of our official mentor experiences of the semester. She has, however, begun to create her “own” pages, which include inserting images and adding text blocks. Figure 4 depicts an example of one of her “works in progress.”

The second area of confidence speaks to the issue of knowing that technology is in fact, a tool for Katherine to effectively capture her goal of expressing herself professionally, yet instilling an undertone of her integrated mind, body, soul approach to research and teaching. This is the subcategory of perceived control. Here, if learners believe that the choices they make and the degree of effort they expend have a direct influence on the consequences of their behavior, they will be more confident. I believe this aspect of confidence was an area of significant growth for my mentee. It is also the more difficult type of confidence to build in one’s world view. The stigma of technology of being a cold, impersonal, and in general, just a poor substitute for face-to-face interactions is a powerful hindrance in adopting technology into teaching and learning. I hope this mentor experience for Katherine has helped her achieve this confidence and will continue to welcome other technology applications in her professional endeavors.

Satisfaction

The last phase of the motivation model is satisfaction. If the outcomes of a learner’s efforts are consistent with their expectations, and if they feel good about the outcomes, then they are likely to remain motivated. Satisfaction can result from extrinsic
and intrinsic factors (Keller, 1987). Extrinsic factors include the satisfaction of having a working, completed web site that acts as a showcase for all of Katherine’s professional areas such as teaching, research, and service initiatives. Being able to orient colleagues, friends, and other professional acquaintances to the contents of her web site is functionally useful, as it allows others to easily access the information and provides a greater sense of visibility to her accomplishments. In the following e-mail message, it was gratifying for me to read Katherine’s response to a sample of one of the web pages. She writes, “Oh my god!!!!!!! It's GORGEOUS! Can't wait to talk with you today (once I pick myself up off the floor!).” In a sense, this was also satisfying for me, as the feedback of my help was acknowledged. Appendix A includes a series of screen captures of Katherine’s evolving web site.

When discussing the intrinsic motivation factors, Keller (1987) describes the subcategory of natural consequences. Natural consequences addresses the question, “How can I provide meaningful opportunities for learners to use their newly acquired knowledge or skills?” I believe this aspect of satisfaction speaks to the heart of my mentor experiences with Katherine. She writes a narrative on the book, Teaching to Transgress, by bell hooks (1994) in her web site:

My story here illustrates how knowledge can come to us through the body, how we can “name our pain . . . [and] theorize from that location” (p. 74). The call for “engaged pedagogy” that hooks makes in Teaching to Transgress is one that asks us, as teachers, to examine and share how our lives have given us strength, where there has been wounding, and how we may have used or be using
our own wounds to wound others. By integrating our bodies, minds, and souls, hooks restores to us our wholeness and asks that we use that to be part of the process of social healing.

This passage in Katherine’s web site captures the essence of what she is trying to do with her web site, namely in providing a venue in which she can share and make meaning of important aspects in her life. This life is now able to be shared through her web site and I believe this gives Katherine a great sense of intrinsic satisfaction.

I cannot conclude this story of my mentor experiences without sharing some of my moments of intrinsic satisfaction, too. It was during the last mentor-mentee luncheon when all of the pairs gathered for the last time so we could share what we had accomplished throughout the semester. As I listened to Katherine describe to others the contents of the web site, she talked about the design and how each and every image had its own special significance for her, and that each and every image was purposefully included and placed within the site. She was thinking and talking like a designer. It did not matter if it the medium was a web site or a printed page. In one sense, the technology had become invisible, and the design and meaning became the star.

This brings me back to the significance of the title of this piece, “Infusing Creativity and Design into a University Faculty Mentor Process: Means and Ends”. I view design as a central player in describing the change process of Katherine’s technology learning and integration. It provided the means by which Katherine became more accepting and satisfied of the internet and web sites, and their role in her professional life. It also acted as an end or product in that she now has a concrete, yet
ever-changing artifact that is a testament to her unique journey as a mother, daughter, sister, friend, and multicultural education scholar.

V. Concluding Remarks

Some wonder if I was a design mentor or a technology mentor for my faculty mentee. I believe I was both and that was one of the exciting aspects of this case study. Through design, I believe my faculty mentee became interested, engaged, and excited about the role of technology in the development of her professional web site. While the two of us are engaged in different specialties in our research and teaching areas, graphic expression became the central part of our working relationship. However, it is not the only part. From my mentee, I have gained a new perspective on the exciting and many times challenging area of multi-cultural education. I have been fortunate to have been brought together with an energetic, passionate, and creative faculty member, who is beginning to adopt and appreciate the many opportunities that technology can offer in a faculty member’s professional activities.

Differences and Similarities between Mentor and Mentee impressions of the process

When discussing the differences and similarities between our impressions of the process, I go back to the definition of graphic expression—the conversion of thoughts, ideas, and concepts into symbols that has meaning. I was strongly focused on providing Katherine with design ideas to help her achieve a professional, yet artfully created web site. To do this I knew she wanted to make sure that the web site integrated and reflected her self as a whole person, so I introduced the idea of using images of artifacts that had significance in her life. This was a design strategy that I noted and then proceeded with the collaborative design process, not thinking too much more about this. Katherine, on
the other hand, noted in her interview her motivation originated first from the need to make her web site reflect herself. She said she was reluctant at first to create a sterile website, but knew that web sites were an effective way to share her work with others. When she began to see how much we could integrate so many aspects of her life into a “professional” web site, she was intrigued, and this fueled her commitment to learning more about the web authoring software, and other technology in general, in her faculty responsibilities. So, really, our impressions were very similar—design is a powerful tool in the integration of technology in the faculty mentoring program.

Building Relationships and Technology Integration

I cannot finish this case study without mentioning the powerful and lasting effect of this mentor experience in building a relationship with Katherine. It is here that technology has seemed to become an invisible part of this integration into our daily professional and personal lives. As the mentoring comes to an end for the semester I am left with the powerful memories of Katherine’s narratives included in her website; I am left with the beginnings of a new understanding of multicultural education, critical literacy, and looking forward to reading more about a particular book that has been an important part of Katherine’s philosophy of teaching.

While my research and Katherine’s are not in the same area of specialization, I have greatly enjoyed coming to know a little more about multicultural education. Born in Korea, but raised in the United States for most of my life, it never really occurred to me how much my beliefs, work ethic, and general opinion about all things have been greatly influenced by my environment. I may have the physical features of a Korean individual, but I cannot escape the reality that, in part, I am a product of American education and a
white Protestant-Jewish network of family and friends. From a child hating to be
different, to an adult becoming increasingly fascinated by the differences, it gives me an
interesting and ever-changing perspective as a scholar in education.

Now, as our mentor process artifacts come to a more finalized stage and
Katherine’s web site is opened to the world, everyone will be able to read about her
journey and experiences; I feel fortunate to have been a part of helping her share these
with all of you.

VI. Epilogue (from Katherine)
<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
<th>Subcategory</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ATTENTION</strong></td>
<td>Includes those things that relate to curiosity, sensation seeking, and other factors that help explain how attention is obtained. To stimulate and sustain attention.</td>
<td><strong>Perceptual Arousal</strong> Activated by things that is novel, surprising, or uncertain.</td>
<td>This does not last long. Must move on to inquiry arousal in order to sustain arousal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Inquiry Arousal</strong> Needed in order to sustain attention. A deeper level of curiosity that is resolved by knowledge-seeking behavior.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Variability</strong> Learners benefit from variation (even if the instructional approach is very good).</td>
<td></td>
</tr>
<tr>
<td><strong>RELEVANCE</strong></td>
<td>The learner wants to know why she/she should be progressing in a given direction or pursuing a given task.</td>
<td><strong>Goal Orientation</strong> Deals with ends &amp; is largely utilitarian. Does the instruction perceived to be helpful in accomplishing important goals of the learner?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Motive Matching</strong> Process-oriented. Two kinds of strategies: 1) “need for achievement”, and 2) “need for affiliation”</td>
<td>1. <strong>Need for achievement</strong>—enjoys defining goals and standards for themselves. Likes control over the means of achieving the goal. Uncomfortable in group work. 2. <strong>Need for affiliation</strong>—enjoys being with other people in non-competitive situations; establish friendly relationships.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Familiarity</strong> A blend of both ends and processes. Some individuals may be high in both of these motives.</td>
<td></td>
</tr>
<tr>
<td><strong>CONFIDENCE</strong></td>
<td>The learner has to believe that there is an acceptable probability of success before they will be highly motivated.</td>
<td><strong>Perceived Competence</strong> Learners are more motivated when they believe they have the competencies necessary to succeed.</td>
<td>A distinction between learners learning new tasks versus learners after mastering a task. Former needs freedom to make mistakes, and the latter needs challenge or risk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Perceived Control</strong> If learners believe that the choices they make and the degree of effort they expend have a direct influence on the consequences of their behavior, they will be more confident.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Expectancy for Success</strong> Similar to the self-fulfilling prophecy. When people believe they can succeed at a task, they will likely spend more time and effort, which leads to a higher rate of actual success.</td>
<td>Note: some people’s expectations often differ from the objective probabilities of success.</td>
</tr>
<tr>
<td><strong>SATISFACTION</strong></td>
<td>If the outcomes of a learner’s efforts are consistent with their expectations, and if they feel good about the outcomes, then they are likely to remain motivated. The key is to stay motivated. Satisfaction can result from extrinsic and intrinsic factors.</td>
<td><strong>Natural Consequences</strong> “How can I provide meaningful opportunities for learners to use their newly acquired knowledge or skills?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Positive Consequences</strong> “What will provide reinforcement to the learners’ successes?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Equity</strong> “How can I assist the students in anchoring a positive feeling about their accomplishment?”</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2: A sample web site selected for its overall graphic expression.
Figure 3: A sampling of graphics for review.
Figure 4: A web page developed by the mentee.
References


Faculty technology mentoring: About the program (retrieved November 12, 2005). 

http://www.public.iastate.edu/~mstar/mentor/about_program.htm


Richardson Bruna, K. (retrieved December 1, 2005). 

http://www.public.iastate.edu/~lbrun/index3.html


Appendix A: Screens from Katherine’s web site

La vida es sueño
Welcome

This is the website of Katherine Richardson Bruna, Assistant Professor of Multicultural and International Curriculum Studies at Texas State University. I have designed this site to share information about my work as a multicultural teacher educator and curriculum developer. It is based on my own experiences in working with students from diverse backgrounds and my research in the field of multicultural education. The site includes information about my courses, publications, presentations, and other professional activities.

The website is also a platform to share my experiences, insights, and reflections on my work as a multicultural teacher educator. It is designed to be a resource for educators, students, and anyone interested in multicultural education.

Autobiographical Statement

I was born in Portland, Oregon, the daughter of a Methodist minister. My father, the Reverend Bruna, was a community leader and a respected member of the local community. As a child, I was always surrounded by people from different backgrounds and cultures, which greatly influenced my perspective on multicultural education.

As an educator, I have always been passionate about helping students understand and appreciate the diversity of our world. I believe that education is a powerful tool for promoting understanding and tolerance, and I strive to incorporate multicultural perspectives into my teaching.

While I was growing up, my family was not well-off financially. However, my father always encouraged me to pursue my dreams and to work hard to achieve them. He instilled in me a strong sense of resilience and determination, which have helped me to navigate the challenges of life.

As a multicultural teacher educator, I believe that education is a powerful tool for promoting understanding and tolerance. I strive to incorporate multicultural perspectives into my teaching, and I am always looking for ways to improve my practice and to better serve my students.

I hope that this website will be a valuable resource for educators, students, and anyone interested in multicultural education. Please feel free to explore and share the information I have included here.
Brunner 35
I like this photo of me working with my U.S. Mexican transnational students because it captures the kind of energy and excitement when I'm with them. I often leave the high school feeling revitalized from our interactions. When I look at the photo, it assures me that the students are actively involved in our conversations, and that they might be getting just as much out of our work together as I do. It’s an affirming photo for me.