Teaching "Less" Better in Higher Education:
A Case Study for Exploring Targeted Skills and Learning Outcomes

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ABSTRACT. Effective educators who teach "less" better often focus their pedagogy on several distinct cognitive, emotional, and behavioral skills they target in instructional settings. This case study explores teaching "less" better using the Attention, Interact, Apply and Invite (AIAI) – Fact, Think, Feel, Do (FTFD) Start-to-Finish Teaching Model. Data were collected from a diverse, multi-ethnic sample of 226 participants using face-to-face and online formats at a university in the Southeastern United States. Researchers identified major cognitive, emotional, and behavioral target skills at the beginning of four separate parenting and family development courses. The same instructor taught the courses at different times during the day, during different semesters, in synchronous and asynchronous formats. An open-ended survey assessed the top three learning outcomes to determine if participants identified instructor-targeted cognitive, emotional, and behavioral skills as the most important learning outcomes. Initial results indicate that teaching "less" better through use of the AIAI-FTFD may be effective for bringing instructor-targeted skills and learners' learning outcomes into synchrony.

Keywords: teaching, effective teaching, higher education teaching, teaching models, AIAI-FTFD

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The landscape of higher education is changing (Darling-Hammond, 2006; Weimer, 2013). While the traditional model of using stand-and-deliver teaching methodologies is still very much present and retains some value (Middendorf & Kalish, 1996), this model is falling out of favor with many 21st century learners and seen as less effective at preparing students for real-world application in the workforce (Knight & Wood, 2005). This finding is supported by previous studies (Fensham, 1992; Johnstone & Percival, 1976), which found adult learners are capable of paying attention to lecture format delivery for only 15 to 20 minutes before losing focus mentally. In addition, as the lecture continues, a learner's attention span tends to decrease, often dropping to 10-18 minutes. This phenomenon highlights the need for more effective and interactive instruction.

To adapt to the needs of learners and respond to calls from business and industry for employees with translatable skills, educators are increasingly shifting from a *teaching paradigm* (i.e., teacher-centered) to a *learning paradigm* (i.e., learner-centered) (Guskin, 1994; Weimer, 2013). Part of shifting to a *learning paradigm* consists of shortening lecture times along with adding more time for interactions (e.g., teacher-learner, learner-learner, learner-content, and learner-technology interactions), including small group discussions, applicable stories, and buzz groups (Middendorf & Kalish, 1996). More specifically, the *learning paradigm* promotes (a) learner-centered application of concepts and principles; (b) active learning through participation; (c) group and teamwork exercises; (d) critical thinking discussions; (e) problem-based and project-based cooperative and collaborative learning; and (f), other related activities, most of which are associated with experiencing real-world contexts or solving real-world problems.

Teaching "Less" Better

The focus of this case study is to (a) review main concepts of the *learning paradigm* by highlighting Merrill's (2002) review and synthesis of several instructional models of top scholars in the field of instructional design, (b) introduce a new start-to-finish instructional model used by the authors of the current study to promote the learning paradigm, and (c) explore how this model may have influenced learning among the sample of interest (n=226). Specifically, this study highlights the concept of *Teaching "Less" Better,* an integral part of the learning paradigm, as applied through the AIAI-FTFD Start-to-Finish teaching model.

The primary aim of teaching "less" better is to help learners acquire and apply new knowledge in the most efficient possible way. Teaching "less" better means delivering shortened lecture segments and intentionally teaching, developing, and expanding fewer concepts and principles to promote deeper understanding and working knowledge of the content students learn. This occurs by intentionally focusing on specific targeted cognitive (knowledge and principles), emotional (attitude and confidence), and behavioral (competencies) skill areas that instructors identify at the outset of the courses.

This exploratory case study uses the AIAI-FTFD model to qualitatively evaluate the effectiveness of teaching "less" better within the context of four sections of a higher education course taught through face-to-face and online formats at a Southeastern University in the United States. This was accomplished by (1) assessing the top three applied learning outcomes (i.e., information and skills that learners found most helpful) identified by individual course participants across four separate parenting courses taught in synchronous and asynchronous formats; and (2) determining how well the learning outcomes that course participants identified synchronized with instructor-identified cognitive, emotional, and behavioral target skills.

Best Practices in Instructional Design

Scholars in the instructional design field have consistently investigated "best practice" methods of instructional design and consequently developed empirically-based teaching models in accordance with their investigations. Although comprehensive review of their scholarly contributions is not warranted, a brief, focused review and synthesis of these leading methods and models from one of the top scholars in the field, David Merrill (2002), is a viable approach to lending foundational support for use of the AIAI-FTFD teaching model in this exploratory case study.

After studying contributions of leading scholars such as Reigeluth (1999), Clark and Blake (1997), McCarthy (1996), Andre (1997), Gardner (1999), and others, Merrill (2002) concluded that these theories and models share fundamentally similar principles as outlined in his four-phase model of instruction. These principles are (1) activation of past experiences, (2) demonstration of skills, (3) application of skills, and (4) integration of skills into the real-world. While studying Charles Reigeluth's contributions, Merrill discovered that Reigeluth suggested two main kinds of instructional methods: basic and variable. Merrill refers to Reigeluth's basic methods as first principles of instruction and to Reigeluth's variable methods as practices and programs. Specifically, Merrill defines a *principle* as a basic method that is always valid under appropriate conditions, regardless of the practice or program. A *practice* is a specific instructional activity. A *program* is an approach consisting of a set of prescribed practices.

According to Merrill (2002), educators need only be familiar with a few first principles of instruction to support a wide range of instructional practices and programs. In addition to his four-phase model of instruction, Merrill proposed five principles of instruction (Merrill, 2002):

Principle 1: Learning is promoted when learners are engaged in solving real-world problems.

Principle 2: Learning is promoted when existing knowledge is activated as the foundation for new knowledge.

Principle 3: Learning is promoted when new knowledge is demonstrated to the learner.

Principle 4: Learning is promoted when new knowledge is applied by the learner.

Principle 5: Learning is promoted when new knowledge is integrated into the learner's world.

Merrill's first principle of instruction targets problem-centered contextual learning. The remaining principles target how learning is promoted in each of the four phases of his model: (a) activation of past experiences (Principle 2), (b) demonstration of skills (Principle 3), (c) application of skills (Principle 4), and (d) integration of skills into the real-world (Principle 5).

Merrill also highlighted contributions of instructional design theorists such as McCarthy (1996), Andre (1997), and Gardner (1999), indicating that although the theory or philosophical orientation of their models may vary, all their theories and philosophical orientations represent fundamentally similar first principles of instruction. Summaries of their contributions are as follows (Merrill, 2002):

- McCarthy (1996) developed 4-MAT, a model teachers use in the K-12 classroom. McCarthy considered student learning styles but concluded that effective teaching requires students to be involved in the entire cycle of learning. The cycle involves four phases: (1) activation, learners share what they know; (2) demonstration, learners acquire new knowledge and relate it to prior knowledge; (3) application, learners use what they know to do something; and (4) integration (Merrill borrowed this term for his fourth phase), learners make knowledge their own.

- Andre (1997) identified what was termed the Instructional Episode, which focused on instruction in three major phases: (1) activation (also borrowed by Merrill), (2) instructional, and (3) feedback.

- Gardner (1999) developed what was termed Multiple Approaches to Understanding, which concentrated on a performance approach to learning, emphasizing understanding content instead of problem solving. His approach also recognized the four phases of instruction that Merrill outlined.

The instructional theoretical contributions of Nelson (1999), Jonassen (1999), van Merriënboer (1997), and Schank, Berman, and Macperson (1999) also validate the finding that Merrill's four-phase model of instruction represents an overarching synthesis of various instructional design theories and models (Merrill, 2002). One last theoretical contribution is noteworthy. Shortly after development of Merrill's four-phase model of instruction, Rickford (2005) identified six deep teaching principles for instructors: (1) student engagement, (2) learner participation, (3) repetition and reinforcement, (4) high expectations, (5) sound teaching pedagogy, and (6) conceptual understanding. Each principle can be integrated easily into Merrill's model and the AIAI-FTFD model, introduced below.

The AIAI-FTFD Instructional Model

The above summary of best practices in instructional design suggests support for a model of instruction that incorporates principles, practices, and programs proposed by these theorists into a specific, easy-to-learn, start-to-finish format. Correlated with the work of these theorists

but developed independently from them, the Attention, Interact, Apply, and Invite – Fact, Think, Feel, Do (AIAI-FTFD) Start-to-Finish Teaching Model represents a theoretical and practical experiential approach to instruction, in an effort to teach "less" better (Harris, Moen, Morrow, Teemant, & Kumaran, 2014). The AIAI-FTFD model is supported by more than thirty years of teaching, teacher training, and observation. The model also has support from research in primary, secondary, community, and higher education contexts, involving all types of learners, including exceptional learners on both ends of the spectrum.

The full AIAI-FTFD model includes four distinct stages (1) Preparation, (2) Delivery, 3) Homework, and (4) Evaluation. The model can be used for designing, delivering, and evaluating full educational programs or individual instructional presentations and workshops. *Preparation Stage* (Figure 1) includes (a) identifying the target audience; assessing the learners' felt, ascribed, and future needs (Powell & Cassidy, 2007); (b) determining the top 2-3 concepts or principles to be used for teaching "less" better; (c) identifying cognitive, emotional, and behavioral target skills; (d) operationalizing these target skills into corresponding objectives, including establishing an overall goal for the presentation or program; (e) choosing which role the instructor will play (i.e., expert, facilitator, or consultant); (f) defining exactly what the instructor and the learner will do, and then (g) identifying what type of content, mental processes, and methods will be promoted in the educational session or program.

Similar to Merrill's four-phase model of instruction, the instructor facilitates the presentation by employing four steps or phases that promote best practices in teacher instruction and learning during the AIAI-FTFD model's *Delivery Stage* (Figure 1). The first phase, *Attention*, is designed to engage learners by focusing their attention on the task at hand through a short video, story, object lesson, or other learning activity. In this phase, approximately three-to-five minutes is the optimal time for instructors to engage learners and then guide them quickly to the next phase, *Interaction.* During this phase, the instructor engages learners by introducing relevant principles and concepts through different pedagogical and technological practices and programs. The goal of this phase is to promote developmentally appropriate comprehension and critical thinking among learners. The *Application phase* follows, wherein learners are encouraged to make practical, real-world applications of principles covered. Typically, a 5-10-minute practice activity is introduced so learners can practice and gain confidence using the principles, concepts, and skills learned. *Invitation*, the final phase, encourages learners to take the skills they learned and commit to practicing them outside the classroom (Harris et al., 2014). Assigning homework, learning labs, and other activities designed to solidify knowledge and skills learned during the instructional session represent some practices and programs that often accompany this phase.

The *Homework Stage* includes designing homework, assignments, labs, and other out of class practice activities that specifically address the identified instructor-targeted cognitive, emotional, and behavioral skills. These skills have been operationalized and mapped to the cognitive, emotional, and behavioral learning objectives and outcomes.

THE AIAI-FTFD START-TO-FINISH INSTRUCTIONAL MODEL
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Preparation Stage: **Target Audience:** **Learner Need(s):** **Content** *2-3 Concepts/Principles* **I will teach:** **1.** **2.** **3.**		**Overall Goal:**		
Target Skills-Cognitive (*knowledge*)**,** **Emotional** (*confidence - attitude change*)**, and** **Behavioral** (*skills*) **Processes:** 1. **Cognitive/Know (C) –** 2. **Emotional/Apply (E) –** 3. **Behavioral/Practice (B) –**		**Objectives** (*mapped to target skills*)**:** **1. (C) – Participants will identify (know) . . .** **2. (E) – Participants will apply . . .** **3. (B) – Participants will practice . . .**		
AIAI-FTFD Variety: **Role: Expert, Facilitator, or Consultant (Circle One)**				
Unit/Section	**Instructor Will Do** **(List Items)** 1. (C) Know 2. (E) Apply 3. (B) Practice	**Learner Will Do** **(List Items)** 1. (C) Know 2. (E) Apply 3. (B) Practice	**Content** **(Circle Items)** *This lesson will use:* 1. Facts 2. Concepts 3. Principles	**Mental Processes** **(Circle Items)** *This lesson will engage:* 1. Remember 2.Understand 3. Apply 4. Analyze 5. Evaluate 6. Solve 7. Create 8. Design	**Method** **(Circle Items)** *This lesson will use:* 1. Audio 2. Visual 3. Praxis
Delivery Stage: **Lesson Outline**		**Role: Expert, Facilitator, Consultant**		

Attention:
 	
               Interaction:
 	
       Apply:
 	
     Practice *Target Skills: Cognitive, Emotional, Behavioral* **(5-10 minutes)**
 	
   Invite:
		Question Types:
		-*Fact*
		-*Think*
		-*Feel*
		-*Do*		

Figure 1. *AIAI-FTFD Start-to-Finish Conceptual Instructional Model*

Targeted learning outcomes are carefully assessed in the *Evaluation Stage*, in which a specific instrument is designed to assesses the identified cognitive, emotional, and behavioral learning outcomes. What is unique about the AIAI-FTFD model, when compared to the instructional design models reviewed by Merrill (2002), is that it specifically divides the learning process into these four distinct stages while most instructional design models focus only on the *Delivery Stage*. Additionally, while these instructional designers focus on general instructional practices, the AIAI-FTFD model offers a specific start-to-finish approach to teaching and learning that beginning, intermediate, and advanced instructors can easily adapt and incorporate into their teaching paradigms.

The FTFD part of the AIAI-FTFD model is supported by best-practice instructional models as a method of effective questioning for learners. It uses the technique of asking *Fact* questions, or facilitating questioning that is factual in nature to assess previous knowledge (Example: What do you already know about this topic?), similar to Merrill's Principle 2. The questioning then moves to *Thinking*, focusing on asking questions geared to helping learners conceptualize and reason through the information presented (Example: What are possible connections between these two concepts?), similar to Merrill's *Principle 3*. Following this step is *Feeling,* where learners can assess how they can enact personal change from what they are learning (Example: How can you apply what you have learned today to your own context?), similar to Merrill's *Principle 4*. Lastly, there is the question type of *Doing*, inviting learners enact lasting change in their lives by committing to use knowledge and skills learned (Example: What will you do *now* to incorporate or internalize this concept/principle into your skill sets?), similar to Merrill's *Principle 5* (Harris et al., 2014). Specific program training and homework activities designed to help learners practice skills they have learned often accompanies these "Doing" types of questions.

In sum, the AIAI-FTFD teaching model was developed as a thorough, conceptual and principle-based, step-by-step, start-to-finish instructional model designed specifically to promote effective teaching and programming. Core principles represented in the AIAI-FTFD model include development of critical thinking skills, facilitation of group process and discussion, engagement of learners, and deployment of practice and program activities that facilitate acquisition of the identified cognitive, emotional, and behavioral target skills or learning outcomes. This model has been assessed in a variety of learning environments (Harris, Speegle, & Schmeer, 2016), including the course environment that this exploratory case study examines.

Purpose of Study

This study had two purposes: first, assess the top three learning outcomes identified by individual course participants across four separate parenting courses taught in synchronous and asynchronous formats; second, determine how well these learning outcomes, which were identified by course participants, synchronized with instructor-targeted cognitive, emotional, and behavioral skills identified during the *Preparation Stage* of course development. Based on this twofold purpose, the study had two research questions:

1. How do instructor-identified target skills synchronize with participant-identified learning outcomes?

2. How does the AIAI-FTFD model support bringing these identified target skills and learning outcomes into synchrony?

Methods

In this case study, teaching "less" better using the AIAI-FTFD model was explored through data collected from a diverse multi-ethnic sample of 226 participants, using face-to-face and online formats at a university in the Southeastern United States. During the *Preparation Stage* of course development, the researchers identified major cognitive, emotional, and behavioral target skills at the outset of four separate parenting and family development courses. The investigators used the same content taught by the same instructor at different times during the day, during different semesters, in synchronous and asynchronous formats. An open-ended survey was used for assessing the top three learning outcomes from individual course participants. The purpose was to determine whether the targeted cognitive, emotional, and behavioral skills were also identified by course participants (when compared to the instructor's choices) as the most important learning outcomes.

Description of the Parenting and Family Development Higher Education Course

This section provides course objectives and brief description of three course units. There will be description of the curriculum, course assignments, and course activities. Next, the authors briefly discuss how the AIAI-FTFD model was implemented, what the instructor did to address each element of the model, and how the course was taught before implementation of the AIAI-FTFD model.

The following three course objectives were mapped to each course presentation, assignment, and exam, with a designation of 1, 2, or listed next to each item in the syllabus:

1. *Identify* basic concepts, definitions, and approaches used in the study of parenting, within the context of balancing work and family.

2. *Apply* knowledge of context, child development, and various parenting styles through developing a personal parenting strategy.

3. *Practice* skills necessary to balance individual, work, marriage (i.e., partner), parent-child, and family relationships in healthy ways.

Since few course participants were actual parents, the course was divided into three units in an attempt to provide relatable, useful information and skills that they could apply, as learners, to their current relationship contexts *now* and to potential parenting contexts in the *future*. Unit 1, *Parenting and Parenthood in Context: Parents as Individuals, Partners, and Employees – Finding a Balance*, was taught during the first five weeks of the course. During this unit, learners were introduced to parenting and family development through the theme of finding a balance in their lives. Learners discovered how to meet their personal needs, help significant others in their lives learn to meet their personal needs, and successfully negotiate demands

associated with school and work needs and responsibilities, as a foundation for becoming a balanced individual, partner, parent, and employee. Unit 1 presentations included

- The Process of Change;

- Eight Personal Needs of Every Partner, Parent and Child;

- Studying Partnering, Parenting, Work, and Family Development;

- Parenting and Work – A Balancing Act;

- Exploring Gender and Gender Roles with Parents as Partners;

- Exploring Diversity with Parents, Work, and Children;

- Parents as Partners and the 3 C's: Communication, Conflict Resolution, and Commitment;

- Age and Stage Relationships: Preparation for Parenting as Partners;

- Parents, Partners and the Real World;

- Age and Stage Relationships: Divorce, Remarriage, and Stepfamilies.

Unit 2, *Parents, Children, and the Economic Realities – Finding a Balance*, was taught during weeks six and seven of the course. Presentations included

- Children and Money;

- Parents, Children, and Good Health;

- Parents and Money Management;

- Parents and Debt;

- Parents and Employment.

Unit 3, *Parenting Types, Strategies, Skills, Risks, and Resources – Finding a Balance,* was taught during the final seven weeks of the course. Presentations included

- The Transition to Parenthood;

- Pregnancy and Childbirth;

- Parenting Infants and Toddlers;

- Childcare and Alternatives to Childcare;

- Self-Concept, Self-Esteem, and Play;

- Parenting School-Age Children – Middle Childhood and Adolescence;

- Parenting Adolescents and Young Adults – Adolescent Risks and Assets;

- Parenting in Diverse Families and Later Life;

- Parenting in Single Parent Families and Stepfamilies;

- Parenting in High-Risk Families;

- Parenting Children with Exceptionalities;

- Parenting with Love and Logic;

- Raising Digital Natives;

- Children's Emotions and Emotion Coaching.

Three course exams were administered, one at the end of each unit. Each test had 50 multiple choice questions covering unit information. Three course assignments were required, including two papers and one group parenting presentation on an approved parenting topic not covered in the course. The first paper, *Targeting Success: 8 Personal Needs* and *9 Important Skills for Every Partner, Parent, and Child Relationship*, required learners to track how they were meeting eight categories of needs for one week and using nine communication skills for one week. Next, learners were required to discuss how they were balancing their use of the *8 Needs* and *9 Skills* now, and how they could balance their use of them successfully in the future, in personal, romantic partner, parenting, and work contexts. The second paper, *Projective Hindsight Interview: Developing a Personal Parenting Strategy*, required learners to interview two parents from separate contexts (no relatives) whom they considered healthy and skilled parents, and to use this information and information learned from the course to develop an intentional personal parenting strategy.

Online and face-to-face course formats both included the same instructional materials, topics, assignments, grading structure, PowerPoints, and other related information. Differences included the instructor recording delivery of information for the online format in a state of the art studio at the Center for Instructional Technology and Training. Due to high enrollment, no discussion board assignments were offered for the online format. Online and face-to-face learners were encouraged to ask questions in person and online, to visit the instructor in his office, and to stay in frequent contact with him.

The *Preparation Stage* of the AIAI-FTFD model was implemented over a four-month period by addressing each item identified in the *Preparation Stage* of the model as outlined in Figure 1. This information was used for developing the course syllabus, including choice of textbooks, assignments, exams, criteria for grading, and so on. Next, the *Delivery Stage* of the

AIAI-FTFD model was implemented for each presentation in each unit. An *Attention* idea was included at the beginning of each presentation and information was introduced through *Interaction* activities, leading to eventual *Application* of information and skills and an *Invitation* (or "call to action") at the end of each presentation. *Fact*, *Think*, *Feel*, and *Do* questions were used throughout each presentation to guide learning and to facilitate discussion. After development of the face-to-face course, the online course was developed with assistance from the Center for Instructional Technology and Training over six months. The online course was developed to mirror the face-to-face course as much as possible.

How Was the Course Taught Before the AIAI-FTFD Model Was Used?

The parenting and family development course used in this case study was open to all majors and non-majors and met university general education requirements. Before development of this new version of the course using the AIAI-FTFD model, a previous instructor used a more topic-centered approach with standard lectures, exams, and assignments derived from recommendations from the textbook and test banks. The learners did not like the textbook, so the new instructor stopped using it and overhauled the course with intervention-based teaching approach centered in the AIAI-FTFD model, as described above.

Targeting Learning Outcomes

This exploratory case study intentionally targeted three specific cognitive, emotional, and behavioral learning outcome areas. Learning outcomes focused on helping course participants identify needs, apply skills, and practice healthy actions in personal relationships. As identified above, course participants were first taught the eight needs (Harris, 2012a) that all individuals need to meet regularly to experience well-being: (1) develop a positive picture of themselves; (2) develop close real-love relationships; (3) feel like they belong; (4) receive the respect of others and themselves; (5) feel worthwhile by developing healthy self-esteem; (6) feel competent; (7) experience growth; and (8) feel safe and secure. Then, participants waded through identifying and practicing 9 Skills (Harris, 2012b) of communication: the Four Don'ts (Criticism, Contempt, Defensiveness, and Stonewalling) and the Five Do's (Calm Down, Complain, Speak Non-Defensively, Validate, and Overlearn the Skills) (Gottman, 1994). Additional key principles were covered, such as parenting strategies and financial education principles. Key instructor-targeted skills operationalized into course participant learning outcome objectives for the course were:

1. *Cognitive:* Participants will be able to successfully *identify* the *8 Needs*, *9 Skills*, financial strategies, and successful life and parenting strategies within the context of balancing work and family.

2. *Emotional:* Participants will be able to successfully *apply* the *8 Needs*, *9 Skills*, financial strategies, parenting, balancing work and family information learned to improve well-being and to develop a personal parenting strategy.

3. *Behavioral:* Participants will be able to successfully *practice* the *8 Needs*, *9 Skills*, financial, balancing work and family, and personal parenting strategies to develop healthy relationships.

Participants and Procedure

Course participants in this study represented a diverse sample of learners. They were enrolled in four sections of the same parenting and family development course. These course versions were provided in online and face-to-face synchronous and asynchronous formats across three separate Fall and Spring semesters.

Table 1. *Course Participation*

Course Format	Total Class Size	Total Participants (n)	Response Rate
Online (Fall 1)	70	40	57%
Face-to-Face (Fall 1)	35	30	86%
Face-to-Face (Spring)	89	86	97%
Face-to-Face (Fall 2)	74	70	95%

The sample for this study (n=226) included 34 males, 189 females, and 1 person who identified as other (this ratio of males to females is typical for parenting and family development classes at this university). Additional demographic characteristics for the sample appear in Table 2. The researchers obtained appropriate institutional review board approval and provided a letter of information to prospective participants in the courses, which explained the study's voluntary nature.

Table 2. *Demographic Information*

Age	
19 years or younger	20
20	85
21	73
22-26	16
29 or older	5
Missing	27
Current Work Status	
Full-time while attending school	10
Part-time while attending school	109
Full- or part-time student/ not working	93
Looking for work	4
Disabled	1
Other	2
Missing	7
Racial/Ethnic Groups (n=221)	

White	104
Hispanic/Latino	36
Black or African American	65
Asian	7
Pacific Islander	1
American Indian or Alaska Native	0
Other	8
Missing	5
Religious Affiliation (n=230)	
Baptist	34
Catholic	35
Evangelical Christian	53
Hindu	1
Buddhist	1
Islamic	3
Jewish	12
No Formal Affiliation	36
Protestant	18
Other	33

Four points extra credit were awarded to all learners in the courses regardless of whether or not they participated in the study voluntarily. The researchers intentionally tried to reduce bias by asking course participants one simple, exploratory open-ended question at the end of each course, as follows: "…please share the Top 3 things that you feel were most helpful for you in the class and explain why." The authors purposely did not use the term "learning outcomes" because it was found to be too academic. Asking learners to identify "what was most helpful . . . and why" was considered a much less intrusive, more friendly approach to assessing what learners felt they gained cognitively, emotionally, and behaviorally and that was most beneficial. Asking general open-ended questions has been shown to be a valid form of collecting important data that may not be identified or collected otherwise (Pew Research Center, n.d.). The open-ended item used in this study also explained that participant feedback was valued, and requested participants not to list their names to preserve anonymity of their responses.

Data Analysis

The current study was intentionally designed to be a simple, exploratory case study to learn from the subjective perceptions of course participants about what they found most helpful or beneficial in taking the course. The data analysis plan used a deductive approach in which coders reviewed responses using summative content analysis. This analysis focused on counting the frequency with which response topics appeared, while noting comparisons that participants made, or between different responses. The coders also noted keywords and content in the open-ended responses. A certain amount of interpretation is required in the deductive approach to qualitative analysis to discern the context of each participant's response and categorize topics in each response. Consequently, two coders (both authors of this study) evaluated and categorized the participant responses independently, as a check-and-balance for intercoder reliability. The

coders agreed on core constructs of the study beforehand to encourage greater intercoder reliability. In the event of different determinations or categorizations identified by the coders, a third coder (also an author of this study) was brought in to evaluate any discrepancies. Ultimately, the first coder was generally more detailed in coding than the second coder was. Therefore, if discrepancies occurred, the first coder's findings were checked, validated, and compared with the second coder's findings, followed by general deferral to the findings of the first coder. After the coding process, all coders reviewed the final information and agreed on the findings before results were included in the current study.

Findings and Results

Participants were asked to respond to this question through an open-ended survey: "…please share the Top 3 things that you feel were most helpful for you in the class and explain why." Multiple topics emerged consistently from participant responses. Key response topics were categorized as follows: (1) Interactive nature of the course (applications, discussions, etc.); (2) Application to real life (stories, assignments); (3) Instructor enthusiasm and passion; (4) Exam preparation; (5) Approachable, consistency, sources, and textbook (tied); (6) Parenting topics (styles, skills, traps, Love & Logic, emotion coaching); (7) Love Bucket (8 Needs); (8) Communication (9 Skills); (9) Balancing work and family; (10) Financial lessons (financial management, financial planning); and, several additional topics detailed in Table 3 below. Table 3 identifies the prevalent topics related to course content (e.g., *8 Needs*, *9 Skills*), including total percentage of participant responses for each topic where relevant. These topic areas represent cognitive, emotional, and behavioral targeted skills that characterize various impacts and aspects of learning outcomes that course participants found most helpful. Liking an enthusiastic instructor or finding the textbook worthwhile, for example, denote quantifiable learning outcomes because they motivated students to "do" or learn something, a key component of a learning outcome. Moreover, all of the top five learning outcomes that participants identified were cognitive, emotional, or behavioral skills they acquired at some level during the course. On the surface, the other items (6-13) may not appear to have direct links to learning outcomes, but these items facilitated learning and "doing" in some way. Therefore, these somewhat intangible items can loosely be considered learning outcomes.

Table 3. *Frequency of Response Topics*

Topic	Online (Fall) (n=40)	Face-to-Face (Fall 1) (n=30)	Face-to-Face (Spring) (n=86)	Face-to-Face (Fall 2) (n=70)	Total (n=226)
1. Parenting (styles, skills, traps, Love & Logic, emotion coaching)	22	19	53	47	141 (62%)
2. Love Bucket (8 Needs)	13	15	51	47	126 (56%)
3. Communication (9 Skills)	12	13	25	25	75 (33%)
4. Balancing Work & Family	9	4	19	7	39 (17%)
5. Financial Lessons (financial management and planning)	9	3	13	12	37 (16%)
6. Interactive (applications, discussions)	8	10	19	12	49 (21%)
7. Applicable to Real Life	7	4	18	10	39 (17%)
8. Exam Preparation	-	7	9	4	20 (9%)
9. Textbook (ease/worthwhile)	8	5	-	-	13 (6%)
10. Instructor Enthusiastic- Approachable-	-		11 5	5	11 (5%) 10 (4%)
11. Manageable Workload (Pace)	8	-	-	-	8 (3%)
12. Course Consistency, Predictability	4	4	-	-	8 (3%)
13. Media, Visual Aids/Videos	-	-	-	5	5 (2%)
14. Assignments and Projects	4	-	-	-	4 (2%)

In sum, the topics that course participants listed in their open-ended responses ultimately addressed course content and the overall classroom environment. Therefore, these items were

considered representative of various types and levels of learning outcomes. Topics identified most frequently by participants related to course content included Parenting strategies, Love Bucket (8 Needs), Communication (9 Skills), Balancing Work and Family, and Financial Lessons. Each topic area was associated with skill development and was considered important to learning outcomes that course participants identified.

Discussion of Findings

This study assessed the impact of the AIAI-FTFD instructional model in a higher education parenting and family development course. The model was developed based on an assumption of providing an easy to learn, start-to-finish approach and methodology to teaching "less" better. The course had three objectives: (1) Participants will be able to successfully *identify* the *8 Needs*, *9 Skills*, financial strategies, and successful life and parenting strategies within the context of balancing work and family (cognitive); (2) Participants will be able to successfully *apply* the *8 Needs*, *9 Skills*, financial strategies, parenting, balancing work and family information learned to improve well-being and to develop a personal parenting strategy (emotional); and (3) Participants will be able to successfully *practice* the *8 Needs*, *9 Skills*, financial, balancing work and family, and personal parenting strategies to develop healthy relationships (behavioral).

To measure impact of the AIAI-FTFD model on attainment of these course objectives, two research questions were identified: (1) How do instructor-identified target skills synchronize with participant-identified learning outcomes? (2) How does the AIAI-FTFD model support bringing these identified target skills and learning outcomes into synchrony?

Research Question 1

The first research question, *How well do the instructor-identified target skills synchronize with the participant-identified learning outcomes?*, focused on how targeted skills that the instructor identified were correlated with learning outcomes that course participants identified. The authors expected outcomes related to parenting strategies, the Love Bucket, *8 Needs*, and *9 Skills*, financial management skills, and balancing work and family to be identified by course participants as helpful (Objectives 1-3). These topics received significant time, attention, discussion, and application throughout the parenting and family development course. Findings provided general evidence that topics identified by participants as "most helpful" generally synchronized with topics targeted by the instructor's objectives (Table 3). Justification for these general conclusions is discussed below.

Parenting Strategies

Parenting strategies made up a key segment of the course curriculum. A significant percentage of course activities and lectures focused on introducing, discussing, applying, and practicing parenting strategies. Several course participants explained that parenting topics in the course changed their knowledge bases and future approaches to parenting. One learner stated,

> *I feel like if I didn't learn this information, I would have fallen into an authoritarian parenting style with achievements and accomplishments as my parenting focus rather than genuine love.*

Another learner explained,

> *The C.O.O.L. Principle and learning about Love & Logic parenting was new for me and very informative. I'm sure I'll be able to use these [healthy parenting] skills in the future.*

Responses indicated that these students not only understood parenting concepts (Objective 1), but also planned to integrate them into their strategy for continuing to practice these parenting skills (Objectives 2 and 3). The AIAI-FTFD model was the vehicle through which these parenting strategies were communicated to students. As indicated by the open-ended response item topics, several students noted the course's interactive nature, pacing, and structure as being one of the top three most helpful things about the course (Table 3). Along with responses that focused on parenting information, this evidence may support the idea that the AIAI-FTFD model can be a promising, engaging instructional format to communicate these concepts to students so they feel comfortable in their knowledge of course content and confident in their abilities to apply the content to present and future contexts.

Love Buckets and the 8 Needs

The Love Bucket represented a key visual aid for students to remember the needs that each individual, parent, and child experiences in their relationships. According to the *8 Needs* concepts, each individual has eight distinct needs that must be met for them to experience fulfillment and personal well-being. These needs include (1) developing a positive picture of themselves; (2) developing close real-love relationships; (3) feeling like they belong; (4) receiving the respect of others and themselves; (5) feeling worthwhile by developing healthy self-esteem; (6) feeling competent; (7) experiencing growth; and (8) feeling safe and secure (Harris, 2012a). When these needs are met and nurtured in healthy ways, each nurturing action represents a deposit in the individual's love bucket. Course participants were challenged during the course to track these eight needs for a week and reflect on how they were or were not met. Participants explained their perceptions as to why the Love Bucket and the *8 Needs* were most helpful to them in several ways, such as gaining self-understanding, as these course participants articulated:

> *It [love bucket] really made me stop and think how I viewed myself and [can] develop a more positive view on my daily thoughts about myself.*

> *I realized that I wasn't meeting my needs nearly enough. Because of this, I have started to make an effort to meet them more regularly.*

Other course participants explained that the *8 Needs* and Love Bucket concepts allowed them to identify specific changes they needed to make to increase well-being, or different approaches they could take in daily tasks to meet their needs:

It [8 Needs] exposed areas that need[ed] fixing, and because I was aware of them, a change for the better could be made.

When my residents [I'm an RA] come to me with their problems, I explain how they need to fill their own love bucket.

These responses not only highlight increased understanding or knowledge of the Love Bucket (Objective 1), but also how the concept shaped current and future actions in attempting to meeting needs (Objectives 2 & 3).

Nine Skills

The instructor considered the *8 Needs* and *9 Skills* to be critical components of a comprehensive parenting education curriculum. After participants learned to identify and understand the *8 Needs* concepts, the *9 Skills* were taught as essential communication habits and actions to promote and achieve healthy relationships. Specifically, course participants in this study were introduced to these *9 Skills* of communication (Gottman, 1994) as part of the course:

- The Four Don'ts (Criticism, Contempt, Defensiveness, and Stonewalling)

- The Five Do's (Calm Down, Complain, Speak Non-Defensively, Validate, and Overlearn the Skills) (Harris, 2012b).

Course participants also spent a week tracking daily how they practiced the *9 Skills* in their relationships. When explaining why the *9 Skills* were most helpful to them, some learners explained how awareness of the *9 Skills* (Objective 1) was the course's main positive learning outcome:

Tracking my behaviors [9 Skills] for a week made me aware of how I treated the relationships in my life, especially the relationship with my long-term boyfriend of more than 6 years. He even became interested in the course.

Course participants also articulated how the application of the *9 Skills* shaped their current and future actions:

I was able to show my partner how to complain and not get defensive.

These concrete skills helped me examine my interactions with others in all contexts. Learning to communicate effectively using these skills will be invaluable in both my personal and professional relationships.

I have realized how I use the 9 Skills unintentionally sometimes now, so it is starting to become a habit and that is really cool.

These responses provide insight into how course participants not only understood the concept of the *9 Skills* (Objective 1), but also actively recognized relevance of these skills in their relationships and applied them in their daily lives to strengthen these relationships (Objectives 2 & 3).

Balancing Work and Family

The central theme of the course focused on balancing work and family and the course covered a variety of concepts related to this emphasis (*8 Needs*, *9 Skills*, parenting strategies, and financial management strategies). The overall concept of balancing work and family was one of the learning outcomes that course participants identified most frequently. One participant explained how balancing work and family affected present actions:

> *After helping me balance my schedule and understand my needs, I used what I learned to help my best friend.*

This learner not only used course information to develop balance in his or her own life (Objectives 1-3), but also sought to use the knowledge and skills to encourage someone else outside class to develop greater balance. Other participants explained how course activities related to balancing work and family helped them in the present and helped them prepare for future plans and actions involving spouses or children:

> *I believe that the most helpful thing I learned in this class is how important it is to become a well-balanced individual first before getting married and starting a family. A person must learn to meet their own needs before trying to meet the needs of others.*

> *I learned tips on how to balance work and family. One of the things I am worried about is not spending enough time with my children, but this class taught me ways to have valuable time with my children and spouse.*

Such responses indicate how course participants actively planned how to practice and apply balancing work and family skills to future situations and roles (Objectives 2 & 3). Each of these responses focused on actions these individuals planned to integrate into their lives based on their understanding of balancing work and family concepts. Use of the AIAI-FTFD model throughout the course facilitated and demonstrated how to move from understanding of basic concepts (cognitive skills) to application of these concepts (emotional skills), and finally to practicing these concepts in daily life (behavioral skills). This pedagogical repetition occurred during every presentation, with intentional mapping of course information and skills to the three objectives identified for the course. Interestingly, several students specifically noted that they found this consistent repetition helpful to the learning process.

Financial Lessons

Course participants also identified concepts related to financial lessons and money management as helpful learning outcomes. They cited gaining knowledge about money personalities and money management strategies as some of the most helpful learning outcomes

from the course. Participants also reported that Unit 2 of the course helped them develop greater awareness of financial information and choices (Objective 1), as this learner stated:

> *The most important thing about it [the class] for me was the emphasis on budgeting and creating good money habits. With the information I've gained, I am more aware of the rewards and consequences of having good or bad money management skills.*
> *I have always had problems communicating about money. This class helped me to see how incredibly important it is.*

Other learners acknowledged the relevant application of these concepts (Objective 2) and how they were putting them into practice (Objective 3). For example, one participant explained:

> *I have been on my own for 10 years now and have had to struggle balancing my finances. I felt that the information was useful and motivating. Directly after the lesson, I paid [off] a number of my credit cards.*

These responses show that participants not only found this information helpful, but also felt they were equipped to apply and practice these skills outside of the course. Examples provide more support for how key course objectives were met through the use of the systematic, pedagogical approach to instruction and learning, guided by the use of the AIAI-FTFD model.

Connections to the AIAI-FTFD Model

As discussed above, several participants not only cited course content as helpful, but also cited the course format, including its interactive nature, its application to real life, and the visual aids/videos, textbook, and structure (Table 3). These elements are critical to explaining connections between relevance of course content and efficacy of AIAI-FTFD framework as an instructional model promoting targeted learning outcomes. Participants not only found the information from the course helpful, but also valued how that information was communicated and how it could be applied each day, via face-to-face or online presentations. Concerning the course's interactive nature (the first "I" in AIAI-FTFD), one learner explained,

> *I enjoyed listening to everyone's input, which was a direct result of the powerful facilitating questions that were given.*

Another individual stated,

> *The interaction between the teacher and the students really made everyone want to come to class. When the teacher wants to know you as a person, this really makes you want to hear what he has to tell you.*

These responses show how the *Interaction* component of the AIAI-FTFD model, along with the FTFD questions, facilitated delivery, understanding, and mastery of course content. In the online format of the course, interaction with the other students was greatly reduced. However, several online students articulated how they felt they were still interacting with the instructor because presentations were lively and engaging. Use of the AIAI-FTFD model in

online and face-to-face presentation formats was the same in the sense that the same information was presented, the same questions were generally asked on PowerPoints, and the students were invited to apply and practice the same information and skills, regardless of synchronous or asynchronous format.

Correspondingly, several course participants focused on how the course applied to real life (the second "A" and "I" of AIAI-FTFD). For example, one learner explained,

Most of us are not parents, but . . . I can apply what I have learned to my life today.

Another learner noted,

[I really enjoyed the] invitations at the end of each lecture – I actually looked forward to doing them because the information was so relevant and engaging.

The *Application* and *Invitation* components of the AIAI-FTFD model provided consistent opportunities for students to apply and practice course concepts, which then generated opportunities for students to apply and practice what they learned to their current and future plans: again, helpful and important learning outcomes.

Course participants also identified other items, such as the presence of an enthusiastic and approachable instructor, exams, and the textbook, as helpful to achieving their desired learning outcomes.

[The instructor] always seemed available and willing to help anyone in need.

I found it really helpful that application questions were asked on the tests. The course made you think about the issues at large and apply the techniques instead of [just] memorizing the information.

The textbook was well-written, easy to understand, and completely relevant.

Research Question 2

The second research question, *How does the AIAI-FTFD Start-to-Finish Instructional Model support bringing these identified target skills and learning outcomes into synchrony?*, focused on how the AIAI-FTFD model facilitates connection and synchronization of instructor-identified target skills with course participant-identified learning outcomes. Along with the ways the AIAI-FTFD model facilitated synchrony of target skills and learning outcomes discussed above, two primary themes identified by learners, which promoted positive learning outcomes were directly attributable to using the model: (1) the interactive nature of the course (the first "I" in AIAI) and (2) the applicable nature of the course (the second "A" and "I" in AIAI). As noted previously, learners cited specific aspects of the course structure and instructor teaching methods as helpful to the learning process. This lent further support to the use of the AIAI-FTFD model to facilitate bringing instructor-identified target skills into synchrony with participant-identified learning outcomes.

Facilitation of Learning: Implications for Higher Education

Findings of this study suggest a few insights regarding facilitation of learning outcomes through the use of the AIAI-FTFD model in higher education settings. First, instructors need multiple skill to be effective, which is a key emphasis of the AIAI-FTFD model. An interactive format, engaging media, invested instruction, clear organization, and other distinct instructional skill sets mandated by the AIAI-FTFD model help engage learners throughout the learning process. In turn, learners appreciate instructors who provide consistency and help to facilitate and apply course material to real life. Course instruction models that go beyond presenting topic-centered information and focus on intervention-based application of information to real world contexts can provide important opportunities for learners to master new skills in the classroom, in daily life, and in their professions. As instructors increase the intentionality of this focus, initial findings from the current study generally support the idea that greater synchrony between instructor-targeted objectives and participant-identified learning outcomes can be achieved, especially when a few specific skills are targeted in an attempt to teach "less" better.

AIAI-FTFD and Merrill's Four Phases, Five Principles, and other Instructional Models

Similarities between the AIAI-FTFD model and major components of other instructional design models, such as Merrill's four phases and five principles, are clearly evident. What differs from the AIAI-FTFD model and these other theoretical models is the diverse experiential base in real-world classroom settings that demands the AIAI-FTFD model to clearly articulate a start-to-finish approach to pedagogy through four distinct stages of instructional development. The logical conclusion of working with diverse instructors in primary, secondary, community, higher education, business, consulting, and exceptional settings would clearly support that these diverse instructors, who work in such diverse settings, need to be trained using comprehensive models of instruction rather than simply in basic theoretical principles of effective instruction. That course participants in this study identified multiple skills sets that helped facilitate learning outcomes, such as instructor enthusiasm and approachability, use of media and technology, consistency, and manageable workload (Table 3), seems to support this notion.

Limitations and Implications

Although this study provided qualitative insights into effectiveness of the AIAI-FTFD model through reports by course participants about helpful learning outcomes in a higher education parenting and family development course, the case study design and findings have multiple limitations. This was a simple study, designed using one open-ended question to explore how closely instructor-identified target skills and participant-identified learning outcomes were congruent. The sample for this study was a convenience sample, limiting generalizability of the findings. Due to the classroom evaluation setting, a random sample was not possible. Self-report response bias was also a likely issue in this study, as students were reflecting on a semester of coursework and effort related to mastering course material.

The findings of this study do lend some support for the notion that the AIAI-FTFD model may be a viable method for promoting synchrony between targeted skills and learning outcomes.

However, given the open-ended nature of the questions and the inability to show any type of cause and effect because of the research design, this conclusion is limited. Because the AIAI-FTFD model is designed to facilitate change in the teaching of any content in any context, its theoretical foundation assumes that most change is due to effective use of the model and not to specific content or instructional contexts (Harris et al., 2014). However, while the authors acknowledge that content and context have an important influence on learning outcomes, they also suggest that this influence on learning outcomes can be substantially weakened when intentional, engaging instructional delivery is lacking (Reiser & Dempsey, 2012; Merrill, 2002; Vygotsky, 1978).

It is, admittedly, hard to determine the exact nature of how AIAI-FTFD supports bringing instructor-identified target skills and student-identified learning outcomes into synchrony in this study through teaching "less" better. Therefore, this case study represents a call to researchers to design studies that can parse out synchronized cause and effect learning outcomes through the use of instructional models, such as the AIAI-FTFD or other relevant models. Any potential conclusions associated with this case study must therefore be interpreted with caution.

Future research could include development of a quantitative measure that allows for direct teacher and student comparison. For example, instructors could rank the top 10-15 target skills and the top 10-15 strategies employed in the course, using the AIAI-FTFD model. Students could then rank the top 10-15 learning outcomes gained from the course and the top 10-15 strategies employed in the course. These responses would allow for more specific comparisons of the synchrony between teacher rank orderings and student rank orderings to better isolate course learning outcomes and their relationship to the use of the AIAI-FTFD model. This simple exploratory study makes it clear that development of a reliable, valid quantitative survey instrument is necessary to strengthening the case for using the AIAI-FTFD model to facilitate meaningful learning outcomes.

Conclusion

The focus of this study was to evaluate the efficacy of teaching "less" better through the use of the AIAI-FTFD model. Application of this model to four sections of a parenting and child development course taught at a major Southeastern university supports relevance of the AIAI-FTFD model as a promising framework for teaching educational concepts in higher education. Specifically, the model (a) engages participants with the information; (b) helps them interact with the information, each other, and the instructor; (c) leads them to application of the information to their personal contexts; and (d) gives participants a way to commit to practicing and developing related skills. Because the model is intervention-based and not topic-based, course participants can find direct application -- cognitively, emotionally, and behaviorally -- that motivates them to use this knowledge and these skills to improve their well-being and that of others. Thus, what they identified as most helpful in the course can represent powerful learning outcomes because the instructional model and content have motivated them to "do" something to make positive changes in their lives.

Insights from this exploratory study reinforce the idea that instructors can focus on fewer real-life topics and teach them better (more intensively and effectively) to maximize change

(learning outcomes) in the instructional process. Using an instructional model such as AIAI-FTFD may help facilitate this process and represents another tool that instructors can use to achieve success in higher education classroom settings.

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