Before You Tie the Knot: Mapping Pedagogy, Learning Outcomes, and Effect Size in Premarital Education

Victor W. Harris
University of Florida, victorharris@ufl.edu

C. Bradford Sewell
University of Florida

Jon Anderson
University of Florida

Kyra C. Speegle
University of Florida

Heidi Jones Harris
Concordia University Chicago

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Human services educators are continually seeking ways to make instruction more effective and engaging. This study evaluated the AIAI-FTFD (Attention, Interact, Apply, Invite – Fact, Think, Feel, Do) Start-to-Finish Teaching Model for educators in an ongoing premarital educational program to determine the model's effectiveness in implementing the concept of "teaching as an intervention" in human services educational programming. The AIAI-FTFD Model is designed to first, assist instructors to engage the audience's attention, then introduce the information being taught with the purpose to facilitate interaction between the instructor and participants, next elicit application of the material to personal contexts, and finally, offer an invitation to participants to commit to practice the skills learned. This implementation science study assessed the targeted cognitive, emotional, and behavioral learning outcomes generated by using the AIAI-FTFD Model while completing the Before You Tie the Knot (BYTK) premarital education program online. A self-reported quantitative evaluation design was utilized to assess key objectives in the sample (n = 97). Clearly evident effect sizes were found in perceived knowledge and confidence gain in the ability to implement the skills covered in the training. Implications for how the AIAI-FTFD Model can facilitate change and learning in educational settings are discussed.

Keywords: AIAI-FTFD teaching model, effective teaching, relationship education, premarital education, teaching as an intervention

Introduction

Using intentional and sound pedagogical and andragogical practices is critical to maximizing the change process in an educational learning environment (Cole, 1981; Mace, 1981; Powell & Cassidy, 2007; Stevenson & Harris, 2014). Catching the learners' attention, introducing new

Direct correspondence to Victor W. Harris at victorharris@ufl.edu

information, facilitating interaction between the teacher and the learners, and providing experiential methods for the learners to apply and practice targeted cognitive, emotional, and behavioral learning skills, both during and after educational programming, has been shown to maximize learning outcomes (Edgar, 1969; Harris, Moen, Morrow, Teemant, & Kumaran, 2014; Merrill, 1997). Often, in the absence of intentional teaching practice and sound pedagogy and andragogy, too much information is presented with too little time spent on applying and practicing target skills (Harris, Speegle, & Schmeer, 2016). Cognitive overload, a situation in which a learner is presented with too much information at once, may inhibit an individual from successfully learning the core concepts being taught (Paas, Renkl, & Sweller, 2004). Conversely, active learning (e.g., in-class activity, application, and participation), as opposed to more-straightforward lecture techniques, has been shown to result in higher student gains on class-specific outcomes (Hackathorn, Solomon, Blankmeyer, Tennial, & Garczynski, 2011; Michel, Cater, & Varela, 2009).

One antidote to lecturing is facilitating the process of teaching *less better* by focusing on a few concepts and target skills and carefully evaluating resulting learning outcomes (Harris et al., 2014; Harris, Speegle, Moen, Booker, & Harris, 2018). At the individual level, teaching approaches exist to implement this strategy in a variety of learning environments. The AIAI-FTFD (Attention, Interact, Apply, Invite – Fact, Think, Feel, Do) Start-to-Finish Teaching Model, developed by Harris (Harris, Chartier, & Davis, 2010), represents one such teaching approach that can be employed with many subject areas to practice the idea of teaching as an intervention.

In the current study, the AIAI-FTFD teaching model was specifically applied to a Cooperative Extension premarital preparation training program and was then evaluated based on the participants' reported learning outcomes. Through examining pertinent background information and application of this model, further understanding was sought in an attempt to inform future approaches to a wide range of educational intervention programs.

Background

A review of the AIAI-FTFD model, its theoretical foundation, and the premarital preparation curriculum in which it is applied, *Before You Tie the Knot,* are provided here. General summaries of the model and its theoretical underpinnings are also summarized in previous AIAI-FTFD related research (Harris et al., 2010, 2014, 2016).

Teaching as an Intervention

Previous research has demonstrated that effective teaching methods must include at least the following: assessing learner needs and addressing these specific needs in the teaching environment; founding teaching practices on theory-based and empirically-informed methodologies; understanding, negotiating, and managing learners and group processes

successfully; and, realistically evaluating the teaching experience (Gagné, Briggs, & Wager, 1992; Latham, 2002; Powell & Cassidy, 2007).

Before any lesson begins, instructors should consider what the learner will need in order to accomplish these goals and identify specific cognitive, emotional, and behavioral target skills (i.e., learning outcomes). Related approaches may also include identifying which higher-order thinking (cognitive) skills will be covered in the program or lesson (Anderson & Krathwohl, 2001; Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). It is virtually impossible to evaluate and measure these learning outcomes if they are not identified prior to teaching. Knowing the learners and their felt, ascribed, and future needs at the outset allows the instructional outline to be specifically tailored to the learners, thus maximizing the potential for positive learning outcomes (Powell & Cassidy, 2007).

Once learners' needs have been assessed and specific learning outcomes have been identified, establishing clear learner-centered objectives and goals are essential to guiding the teaching preparation and delivery process (Bennett & Rockwell, 1995; Gagné et al., 1992). Clarifying and determining the instructor and learner objectives and goals informs best practice instructional designs for content mastery, understanding, and application (Harris et al., 2014; Merrill, 1991, 1997). Objectives can also help instructors focus the lesson, assess the effectiveness of instruction, and point toward opportunities for improvement in future training (Tyler, 1949). Additional best practices, such as those compiled by Rosenshine (1983), emphasize the importance of structure, examples, feedback, and, ultimately, opportunities for continued practicing of the identified knowledge and skill learning outcomes. The overall aim of a teaching outline should be to shape the content and instructional techniques into an intentional lesson plan for how to engage the learner and to maximize learning outcomes (Gagné et al., 1992; Harris et al., 2014; Wiggins & McTighe, 2005).

The AIAI-FTFD Teaching Model

The AIAI-FTFD Start-to-Finish Teaching Model (Figure 1) is designed as an instructional tool that can be used across a diverse set of topics and contexts to improve instruction and learning outcomes (Harris et al., 2014; 2016). The model conceptualizes principles of effective teaching in a systematic, step-by-step, start-to-finish format outlining specific preparation and delivery procedures (Gagné et al., 1992; Harris et al., 2010; Harris & Lee, 2006).

The primary foci of the AIAI-FTFD teaching model include initially assessing the learner's (audience's) needs and then targeting associated learning outcomes measured by cognitive, emotional (e.g., confidence, attitudes), and/or behavioral skills that the instructor identifies as important to the learning process. The first step in the AIAI-FTFD model, *Attention*, is designed specifically to catch the learners' attention. Then, the model quickly moves to the second step, *Interaction*, in which the instructor engages learners with pertinent information and concepts. Information is communicated via different sensory modalities (i.e., visual, auditory, kinesthetic),

primarily through facilitating discussion, except in certain contexts when lecture (or playing the expert role) is required. The instructor may also use the consultation role when learners are engaged individually or in groups with tasks (e.g., problem-based learning) that require the instructor to provide input when asked (Powell & Cassidy, 2007; Teemant, Moen, & Harris, 2013).

Throughout the instruction, the instructor asks four kinds of specific, goal-directed questions (i.e., Fact, Think, Feel, Do) about the given topic to facilitate discussion and guide the learners to interact with the information, the instructor, and each other. Specifically, the Fact, Think, Feel, Do (FTFD) component of the teaching model includes a systematic series of questions instructors may pose to the learners to engage in higher-level critical thinking and meaningful discussion. Research indicates that effective questioning promotes higher levels of thinking and improves overall retention of information learned (Edgar, 1969; Gagné et al., 1992).

Application, or applying the information learned, is the third step in the AIAI-FTFD teaching process. Studies have shown that there is a direct positive association between the amount of time spent on this step and positive learning outcomes (Harris et al., 2010; Harris & Lee, 2006). *Application* consists of encouraging learners to make practical applications of the principles and materials the presentation covers. Application also allows learners to achieve new cognitive, emotional, and behavioral learning outcomes pertaining to the material taught.

The AIAI-FTFD teaching model emphasizes the importance of taking intentional time to allow learners to practice these target skills. During the *Invitation* step, learners are able to continue to practice and track these skills at home. The invitation is often introduced in the form of homework and/or through the use of a tracking chart to evaluate ongoing progress for achieving the identified target skills (Badger, 2007; Harris et al., 2014, 2016).

The *Preparation* section in the top half of the AIAI-FTFD teaching model (Figure 1) requires instructors to create lesson plans by (a) assessing learners' needs; (b) deciding on associated content; (c) determining cognitive, emotional, and behavioral target skills; (d) listing instructional objectives and overall learning goals; (e) identifying what the instructor and the learner will do to accomplish identified learning outcomes (i.e., target skills); and (f) determining the type of content, the mental processes that will be engaged, the method of delivery, and the general teaching roles instructors will play in executing this plan (e.g., expert, facilitator, or consultant) (Harris et al., 2010, 2014).

Figure 1. AIAI-FTFD Start-to-Finish Conceptual Instructional Model, © V.W. Harris

Preparation: **Topic**

Target Audience: **Student 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)	Learner Will Do (List Items)	Content (Circle Items)	Mental Processes (Circle Items)	Method (Circle Items)
	1. (C) Know **2. (E) Apply** **3. (B) Practice**	**1. (C) Know** **2. (E) Apply** **3. (B) Practice**	*This lesson will use:* 1. Facts 2. Concepts 3. Principles	*This lesson will engage:* 1. Remember 2.Understand 3. Apply 4. Analyze 5. Evaluate 6. Solve 7. Create 8. Design	*This lesson will use:* 1. Audio 2. Visual 3. Praxis

Delivery: **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

Source: Harris, Speegle, & Schmeer, 2016.

The AIAI-FTFD model also provides a specific method of instructional *Delivery* to implement this plan. Many methods of instruction are available, but few are organized into a start-to-finish, step-by-step model for preparing educators across disciplines to teach effectively (Harris, 2009; Harris et al., 2016).

Effectiveness of Premarital Preparation Programming

In this study, the AIAI-FTFD model was applied in the context of an online premarital preparation Cooperative Extension educational program. Premarital preparation programs have generally shown mixed results of effectiveness. There is an abundance of evidence that premarital education and skills training results in improved relationship quality and satisfaction. Premarital education programs have also been shown to be positively related to higher levels of dyadic couple relationship quality and satisfaction, lower levels of between-partner conflict, and lower rates of relationship dissolution (Fawcett, Hawkins, Blanchard, & Carroll, 2010; Rogge, Cobb, Lawrence, Johnson, & Bradbury, 2013; Stanley, Amato, Johnson, & Markman, 2006). It is not surprising, then, that domains frequently addressed by these programs, such as communication, conflict resolution, and type of inter-partner interaction, are also positive correlates of marital quality and satisfaction (Harris, Schramm, Marshall, & Lee, 2012; Rogge et al., 2013). Consequently, premarital training has become more widely accessible over the past decade (Stanley et al., 2006).

However, Doss, Rhoades, Stanley, Markman, and Johnson (2009) pointed out that couples at risk for relationship dissolution (i.e., those most in need) were less likely to access premarital education programs. Furthermore, Fawcett et al. (2010) questioned the results of much of this body of research. In a meta-analysis of forty-seven studies, these authors found that premarital training is not significantly related to dyadic couple relationship quality and satisfaction when both the published and unpublished research reports are included (such as doctoral dissertations) and found no evidence supporting a significant positive relationship between premarital education and relationship quality over the period of time typically addressed by these studies.

These modest effects of educational programming on subsequent dyadic couple relationship quality and satisfaction illustrate a real need for improvement in this area, particularly through the development and inclusion of pedagogical, andragogical, programmatic, and evaluation methodologies whereby couples incorporate communication and conflict resolution skills into the challenges of day-to-day living (Fawcett et al., 2010). These authors suggest that social scientists must "critically examine and reconsider the content, intensity, methods, settings, delivery mechanisms, and target populations of premarital education" (p. 236).

To this end, the AIAI-FTFD start-to-finish programmatic and instructional model is proposed as an educational tool critically designed to assist educators with content, intensity, methods, settings, delivery mechanisms, and target populations as they disseminate information and skills training that premarital couples can use to be successful in their day-to-day relationships. In the

current study, the model's effectiveness as an instructional tool was evaluated through its use in teaching the *Before You Tie the Knot* premarital preparation program.

Premarital preparation requirements in state laws. In many states where premarital programming occurs, explicit statutes require premarital programs to meet specific content requirements and/or to demonstrate program effectiveness, such as in Georgia, Maryland, Minnesota, Oklahoma, Tennessee, Texas, and Florida (National Healthy Marriage Resource Center [NHMRC], n.d.). For example, one part of Florida Statute 741.0305 (Online Sunshine: The Official Internet Site for the Florida Legislature, 2019) requires the following in order for premarital couples to receive a fee reduction on their marriage licenses:

> The premarital preparation course may include instruction regarding: (a) Conflict management. (b) Communication skills. (c) Financial responsibilities. (d) Children and parenting responsibilities. (e) Data compiled from available information relating to problems reported by married couples who seek marital or individual counseling. (para. 2)

These topics represent key components of successful marital relationships.

Before You Tie the Knot Premarital Preparation Program

Before You Tie the Knot is a research-based Extension program that meets the requirements of Florida Statute 741.0305 and qualifies couples who complete the program for a reduction of the marriage license fee in designated counties. It is designed using the AIAI-FTFD instructional model to assist premarital couples to achieve relationship satisfaction and quality in their relationships by helping them to recognize their own and their partners' needs, parent positively, negotiate conflict successfully, communicate effectively, manage money skillfully, and develop and maintain healthy lifestyles (SMARTcouples.org, 2016). It is one of four relationship education programs being delivered in Florida funded by the United States Department of Health and Human Services, Administration for Children and Families, Grant #90FM0079-01-00.

Meeting personal and partner needs. Wallerstein (1996) asserts that marital happiness can be achieved through the perceived goodness of fit between individual and couple needs, wishes, and expectations. "Needs" are the requirements both individuals, families, and intimate partners have "that must be met at some level if they are to survive and engage in adaptive behavior" (Bubolz & Sontag, 2013, p. 435). These include physiological, social, emotional, and behavioral needs, all of which may be influenced by the human-built, the social-cultural, and the natural physical-biological environmental ecosystems. Coplen and MacArthur (1982) identified at least eight categories of these needs that shape individuals, intimate partners, and their environments: to feel safe, to feel as though we belong, to develop a positive sense of personal identity, to have close real love relationships, to receive respect, to feel worthwhile, to feel capable (competent), and to experience growth. Central to meeting each of these needs is to feel lovable and capable.

The first module of the *Before You Tie the Knot* premarital preparation program assists couples in identifying these needs and helps them address their own and their partners' needs in each of these eight categories. The AIAI-FTFD instructional model provides the methodology to help individuals and couples address meeting these needs through practice activities during this module and provides a tracking chart for them to continue to practice meeting their own and their partners' needs outside of the classroom setting – a best practice in maximizing knowledge and skill development.

Children and parenting responsibilities. Responsible and positive parenting are associated with couple relationship satisfaction and stability (Gottman & Notarius, 2000; Harris, 2010; Harris, Johnson, & Olsen, 2013). Parental warmth, connectedness, and monitoring skills have been found to be effective in influencing short-term child outcomes of secure attachment, playful exploration and motivation, and effective communication and long-term child outcomes of healthy social-emotional, cognitive, and language ability development (Roggman, Boyce, & Innocenti, 2008).

The second module of the *Before You Tie the Knot* premarital preparation program helps couples to identify and practice parental warmth, connectedness, and monitoring skills through the use of Latham's *Positive Parenting* (1994) principles and the *Love and Logic* principles authored by Cline and Fay (2006). Tips for stepparents and co-parents are also included in this module (Allgood, Higgenbotham, Crook, & Skogrand, 2007a, 2007b). An invitation and a tracking chart to continue to practice the parenting skills learned are also provided as part of the andragogy of the AIAI-FTFD model.

Conflict management and communication. Larson and Holman (1994) identified *interactional processes* (i.e., conflict management and communication) as the most predictive factors that influence relationship satisfaction and quality when compared with *individual traits* and *contexts* (Larson, 2003). Gottman, Coan, Carrere, and Swanson (1998) identified gentleness, soothing behaviors, and de-escalation of negativity as the key factors in positive interaction. Balance theory was cited as an explanation for the need to balance negative and positive interactions. According to Gottman (1994b), the optimal ratio of positive to negative interactions is at least 5:1. Gottman (1994b) has also specifically identified four negative behaviors that act as a deterrent to positive communication: criticism, defensiveness, contempt, and stonewalling. Five healthy communication and conflict resolution behaviors that promote positive interaction have also been identified (Gottman, 1994a): calm down, I-messages, speak non-defensively, validate, and overlearn the other eight skills.

The *Before You Tie the Knot* premarital preparation program introduces the *9 Skills of Communication (9 Skills)* (Gottman (1994a, 1994b) to couples along with *10 Rules for Conflict Constructive Conflict (10 Rules)* (Harris, 2012) in the third and fourth modules. Couples practice

the *9 Skills* and *10 Rules* during the sessions and are provided with tracking charts so they can continue to practice these skills at home.

Financial management responsibilities. Levels of debt are highly associated with marital satisfaction and stability (Amato, Johnson, Booth, & Rogers, 2003; Dew, 2008). In fact, debt and financial issues constitute some of the biggest trouble spots identified by newlyweds (Schramm, Marshall, Harris, & Lee, 2005) and by couples in general (Harris et al., 2012). Therefore, learning to manage finances in responsible ways is critical to relationship success.

In the fifth module of the *Before You Tie the Knot* curriculum, understanding money habitudes (i.e., *habits* and *attitudes*; Solomon, n.d.), setting SMART (Specific, Measurable, Achievable, Relevant, Time-Bound) financial goals, defining roles and responsibilities, putting together a plan for managing finances, and learning about the legalities of marriage in the financial world are addressed. The AIAI-FTFD teaching methodology is used to facilitate the capstone activity of this module, which includes assisting couples in developing a viable and functional budget.

Healthy lifestyles. Getting married should not be a recipe for weight gain, but this is a reality for many couples in America (Hitti, 2007; The & Gordon-Larsen, 2009). Generally, however, marriage tends to influence men's health in positive ways biologically, behaviorally, and psychologically (Harvard Medical School, 2019a; Markey, Markey, & Gray, 2007). Men are not the only beneficiaries of health due to marriage. Women's health also benefits from satisfying marriage relationships such as a reduced for cardiovascular disease among midlife women (Harvard Medical School, 2019b).

Healthy lifestyles is the topic of *Before You Tie the Knot's* sixth module. It includes understanding couples' emotional, psychological, and physical health; the positive and negative impacts of relationships on health and vice versa; and learning ways to practice healthy lifestyles individually and as a couple. The AIAI-FTFD teaching model is used to promote wellness through the facilitation of managing stress, exercise, and nutrition in this module.

<div align="center">Purpose</div>

The purpose of this study was to evaluate an ongoing premarital education program, designed using the AIAI-FTFD start-to-finish teaching methodology for human services educators (Harris et al., 2014), as a potential model for employing effective teaching as an intervention in human services educational programming. The research question that drove this exploratory study was, "What are the cognitive, emotional, and behavioral change learning outcomes generated by employing the AIAI-FTFD teaching model as an intervention in designing, delivering, and evaluating the *Before You Tie the Knot* (*BYTK*) program in an online learning environment?"

Objectives

Transforming target skills into learning objectives is an important key to employing best practices in teaching (Gagné et al., 1992; Harris et al., 2014). The objectives identified for this study using the AIAI-FTFD method correspond to the core goals of the *Before You Tie the Knot (BYTK)* training. The objectives of the *BYTK* program include:

Objective 1. Participants will increase their levels of understanding (knowledge) about the factors associated with meeting their own and their partners' needs, parenting effectively, healthy communication and conflict resolution patterns, managing money well, and practicing healthy lifestyles.

Objective 2. Participants will demonstrate increased changes in levels of confidence (attitudes) about their abilities to meet their own and their partners' needs, parent effectively, communicate and resolve conflict in healthy ways, managing money well, and practice healthy lifestyles.

Objective 3. Participants will report the increased use of positive skills (behaviors) to increase positive interaction, decrease negative interaction, increase positive bonds, and increase satisfaction and well-being, four primary indicators of healthy relationship stability and success, in each of the areas identified in Objectives 1 and 2 (Harris, 2014; Harris et al., 2012).

Methods

This study represents an expansion of previous studies of the AIAI-FTFD teaching model (Harris et al., 2010, 2014). The authors used a self-report quantitative evaluation method across an array of program contexts to study the effectiveness of the AIAI-FTFD teaching methodology in an educational learning environment among participants who completed the *Before You Tie the Knot* training.

The sample in this study was non-randomized and was drawn from all participants ($n = 97$) in a Southeastern state who voluntarily completed a 6-hour online premarital education program titled, *Before You Tie the Knot*. A majority of the subjects who participated in this study were White, female, below age 29, and single. Participants were not required to be in a couple relationship to participate in the program. In fact, among this sample, few participants were coupled, allowing the study authors to assess the impact of the *BYTK* program on single participants who might get married someday. Additionally, the fact that the majority of the sample was female suggests the greater general interest among females than among males in premarital preparation training. Most participants made less than $40,000 a year or more than $80,000 per year and had a high school degree or higher. Demographic characteristics of the study participants are shown in Table 1. Missing demographic information is also reported.

Table 1. Demographic Description of BYTK Participants (n = 97)

Characteristics	n	%
Gender		
Female	83	86
Male	14	14
Missing Data	0	0
Age*		
14-19	8	8
20-29	77	80
30-49	5	5
50-59	1	1
60-69	1	1
70 and above	0	0
Missing Data	5	5
Marital Status		
Single	84	87
Married	3	3
Divorced	1	1
Partnered (Cohabiting)	9	9
Widowed	0	0
Separated	0	0
Missing Data	0	0
Income level*		
< $20,000	51	53
$20,000-39,999	13	13
$40,000-$59,999	5	5
$60,000-$79,999	6	6
$80,000 or more	21	22
Missing Data	1	1
Education Level		
Less than high school	0	0
High school graduate/ GED	27	28
Associate's Degree	46	47
Bachelor's degree	19	20
Graduate degree	5	5
Missing Data	0	0
Race/Ethnicity		
White	43	44
Black	29	30
Hispanic/Latino	17	18
Asian/Pacific Islander	2	2
Native American	0	0
Other	6	6
Missing Data	0	0

Because this was an IRB-approved study, participants received a letter of information informing them that participation in the program was strictly voluntary and that any survey item they did not want to complete was strictly at their discretion. Data used from the *BYTK* variables were

generally not included unless they were complete. In several cases, where only one or two data points were missing, the overall mean for the variable was calculated by reducing the *n* to the participants who had completed the questionnaire item and then averaging the overall scores to determine the overall mean.

Research and Curriculum Design and Delivery

The research design used for this IRB-approved study was a self-report quantitative exploratory cross-sectional design using a purposive sampling method. The *BYTK* curriculum used in this study was designed for human services environments in order to employ best practices in program design, implementation, and evaluation (Powell & Cassidy, 2007) using the AIAI-FTFD teaching model (Harris et al., 2014). The AIAI-FTFD teaching model was included in the notes section of the *BYTK* PowerPoint used to deliver the curriculum with embedded accompanying teaching strategies, instructional methods, and questioning techniques. The curriculum was administered online in six one-hour sessions. Participants could stop and start the sessions, come back to them at any time, and continue their participation.

Videos, lectures, activities, and quizzes were required to complete each session, including a required 100% correct score on all quizzes, which could each be taken multiple times. A certificate of completion was awarded and could be downloaded after all requirements were successfully completed. No compensation was granted for participation in the study.

Data Collection and Analysis

A one-time retrospective pretest-then-posttest (pre-then-post) online survey instrument, using Qualtrics was administered to assess participants' knowledge, confidence, and behavior change at the end of the *BYTK* program. The instrument was reviewed by a panel of experts to determine potential validity and reliability issues specific to the target skills identified in this study. The instrument was adjusted to ensure content and construct validity. A five-level Likert-type scale providing a range of responses (strongly agree, disagree, neither agree nor disagree, agree, and strongly disagree) was used to assess knowledge, confidence, and behavior change for the program variables studied (Table 2).

Behavior change was also assessed using four statements targeting decreasing negative interactions and increasing positive interactions, positive bonds, and satisfaction or well-being. A retrospective pre-then-post survey instrument design was intentionally used as a good fit for the *BYTK* programming in order to evaluate learning outcomes both before and after the program for several reasons (see Marshall, Higginbotham, Harris, & Lee, 2007; Moore & Tananis, 2009) summarized below.

Justification for use of the retrospective pretest-then-posttest design. In order to justify the use of the retrospective pretest-then-posttest design, it is important to provide a brief explanation

of the traditional experimental pretest-posttest design in social science research and what are some of its limitations for use in studying and evaluating the effects of community-based educational programs.

The experimental pretest-posttest design using a control or comparison group is considered to be one of the most respected methods that can be used to measure change in individuals (Campbell & Stanley, 1966; Kaplan, 2004). This design is highly regarded because of its control over internal validity concerns and the ability to compare results from the same people or groups of people at multiple time points.

While there are advantages to using the traditional experimental pretest-posttest method, there are some limitations to this research method as well. One limitation comes with finding an adequate comparison group, which can often be difficult or impossible for the researchers to locate. In social science research, using a traditional experimental pretest-posttest design can be difficult due to a lack of resources and time available for community-based programs to complete comprehensive pretest-posttest comparisons (Brooks & Gersh, 1998). Additionally, in order for the pretest-posttest comparisons to be meaningful, participants must attend the complete program from start to finish (Pratt, McGuigan, & Katzev, 2000). Due to the nature of community education programs, attrition and sporadic attendance are common issues (Pratt et al., 2000).

While the pretest-posttest information must be complete for comparisons to be made, it may be challenging for researchers to see the actual changes in attitudes, behaviors, or skills if the participants overstate their original attitudes, behaviors, or skills when completing the pretest (Howard & Dailey, 1979; Moore & Tananis, 2009). This overestimation may occur when the participants do not have a clear understanding of the attitudes, behaviors, or skills that the program is targeting (Pratt et al., 2000). A lack of knowledge on certain topics (e.g., attitudes, behaviors, skills) often supports the initial need for a program intervention, but this same issue may show participants during the program that they actually knew much less than they thought when they completed the pretest.

Thus, researchers must be aware of the potentially misleading information from pretest-posttest comparisons due to the participants' change in perspective (Howard & Dailey, 1979). *Response shift bias*, first referred to by Howard and Dailey (1979), explains the "program-produced change in the participants' understanding of the construct being measured" (Pratt et al., 2000, p. 342). Response shift bias, along with the issues noted previously, should be carefully examined when reviewing findings from pretest-posttest comparisons.

In sum, while the retrospective pretest-then-posttest design is subject to multiple internal validity threats, this design can address many of the issues surrounding the use of the traditional experimental pretest-posttest design discussed above. While admittedly subjective in nature, using a retrospective pretest-then-posttest design allows participants to more adequately assess

changes in the attitudes, behaviors, or skills learned during the program by comparing each specific variable side-by-side at the end of the program intervention.

Data analysis and effect size. The data were analyzed using SPSS version 24.0 (IBM Corp., 2016), a statistical software package, to calculate descriptive statistics and paired sample *t*-tests. Effect sizes were also calculated using SPSS in order to evaluate the standardized mean differences before and after the program for each variable being studied. Focusing on effect size rather than statistical significance helps researchers determine the magnitude of standardized mean differences for a given sample and specific identified variables (Howell, 2002).

Cohen (1988) loosely characterized effect sizes as *d* (.20) = small, *d* (.50) = medium, and *d* (.80) = large. Further, Cohen identified a small effect size as a meaningful mean difference, a medium effect size as a noticeable mean difference, and a large effect size as a clearly evident mean difference (Howell, 2002). Cohen's simplified characterizations are used to report effect size in the current study, but the reader will want to note that Sawilowsky (2009) proposed the following revised rules of thumb for reporting effect sizes: *d* (.01) = very small, *d* (.2) = small, *d* (.5) = medium, *d* (.8) = large, *d* (1.2) = very large, and *d* (2.0) = huge.

Because it is difficult to separate program pedagogy and andragogy from content, the authors of the current study determined that using effect size to evaluate standardized mean differences from before to after the *BYTK* program implementation was a viable first step to exploring and assessing the effectiveness of the AIAI-FTFD teaching model in facilitating change in a premarital educational learning environment.

Results

Results of the implementation and evaluation of the *Before You Tie the Knot* program using the AIAI-FTFD teaching model as an intervention indicated clearly evident reported standardized mean changes specific to each variable being studied (Table 2). Regarding Objective 1, clearly evident (large) standardized mean changes were reported by participants in their understanding of how to meet their own and their partners' needs, parent effectively, resolve conflict in healthy ways, avoid using negative communication strategies while using positive communication strategies, manage money well, and practice healthy lifestyles. Overall, a large, clearly evident effect size (*d* = 1.48) was reported by participants for perceived knowledge gain from before to after participation in the *BYTK* program.

Table 2. Results of BYTK Retrospective Pretest to Posttest Change: Before and After Programming (n = 97)

| Knowledge Change	Retro-spective Pretest Mean Score (SD)	Post-test Mean Score (SD)	Mean Change (SD Pooled)	t	p	Cohen's d (Effect Size)
I understand how to meet my own *8 Needs*.	3.39 (1.04)	4.57 (0.64)	1.18 (0.96)	12.09	<.001	1.23
I understand how to help my partner meet his/her *8 Needs*.	3.03 (1.06)	4.35 (0.69)	1.32 (1.06)	12.31	<.001	1.25
I understand how to parent effectively.	2.85 (1.07)	4.28 (0.72)	1.43 (0.97)	14.41	<.001	1.47
I understand how to resolve conflict in constructive ways.	3.39 (1.03)	4.53 (0.63)	1.14 (0.94)	11.78	<.001	1.21
I understand how to avoid using negative communication strategies (e.g., *4 Don'ts*).	3.16 (1.08)	4.49 (0.65)	1.34 (1.01)	12.95	<.001	1.33
I understand how to use positive communication strategies (e.g., *5 Do's*).	3.44 (1.03)	4.53 (0.65)	1.08 (0.91)	11.65	<.001	1.19
I understand how to manage money well.	3.06 (1.16)	4.21 (0.74)	1.15 (1.02)	10.96	<.001	1.13
I understand how to practice healthy living strategies.	3.60 (0.89)	4.38 (0.69)	0.78 (0.88)	8.65	<.001	0.89
Overall, I understand how I could use the BYTK Skills in my marriage/ relationships.	2.89 (0.99)	4.38 (0.69)	1.48 (1.00)	14.49	<.001	1.48
I meet my own *8 Needs* successfully.	3.06 (1.02)	4.17 (0.77)	1.11 (0.91)	11.91	<.001	1.22
I help my partner meet his/her *8 Needs* successfully.	3.17 (0.91)	4.03 (0.78)	0.86 (0.87)	9.67	<.001	0.99
I practice the principles associated with parenting effectively, even though I may not have a child yet.	3.14 (1.05)	4.17 (0.78)	1.03 (0.88)	11.42	<.001	1.17
I resolve conflicts in constructive ways.	3.21 (1.06)	4.26 (0.72)	1.05 (0.97)	10.56	<.001	1.08

Knowledge Change	Retro-spective Pretest Mean Score (SD)	Post-test Mean Score (SD)	Mean Change (SD Pooled)	t	p	Cohen's d (Effect Size)
I avoid using negative communication strategies (e.g., *4 Don'ts*).	3.01 (1.08)	4.28 (0.68)	1.27 (1.02)	12.23	<.001	1.25
I use positive communication strategies (e.g., *5 Do's*).	3.44 (1.00)	4.38 (0.64)	0.94 (0.89)	10.32	<.001	1.06
I manage money well.	3.04 (1.11)	4.12 (0.84)	1.07 (1.01)	10.33	<.001	1.06
I practice healthy living strategies.	3.45 (1.00)	4.21 (0.73)	0.76 (0.90)	8.25	<.001	0.84
Overall, I am confident in my ability to use the BYTK Skills successfully in my marriage/relationships.	2.83 (1.05)	4.23 (0.72)	1.40 (1.00)	13.59	<.001	1.40
Overall, I use *healthy* skills to increase positive interactions in my premarital relationship.	3.30 (0.94)	4.17 (0.76)	0.87 (0.83)	10.16	<.001	1.05
Overall, I use *healthy* skills to decrease negative interaction in my premarital relationship.	3.35 (0.90)	4.17 (0.76)	0.82 (0.83)	9.58	<.001	0.99
Overall, I used *healthy* skills to increase positive bonds (friendship) in my premarital relationship.	3.38 (0.92)	4.26 (0.75)	0.87 (0.83)	10.16	<.001	1.05
Overall, I used *healthy* skills to increase happiness and satisfaction in my premarital relationship.	3.36 (0.90)	4.23 (0.79)	0.87 (0.82)	10.45	<.001	1.06

Effect Size Change (*d*): .20 = small; .50 = medium; .80 or higher = large

Regarding Objectives 2 and 3, clearly evident standardized mean changes were also reported by participants in their confidence and behavior change from before to after the *BYTK* program for all of the variables studied. Overall, participants reported large, clearly evident standardized mean changes associated with confidence gain in their ability to use the *BYTK* skills successfully in their future marriage/relationships (*d* = 1.40). Perhaps most importantly, reported behavioral data revealed large effect size scores ranging from *d* = .99 to *d* = 1.06 for decreasing negative interaction and increasing positive bonds, interaction, and well-being. Percentage comparisons

of improvement from before to after *BYTK* programming for each variable studied are shown in Figure 2.

Figure 2. Comparison of % Improvements from Before to After BYTK Programming (n = 97)

Before You Tie the Knot
(Program Study 1)
Comparison of improvements accredited to program (n=93)
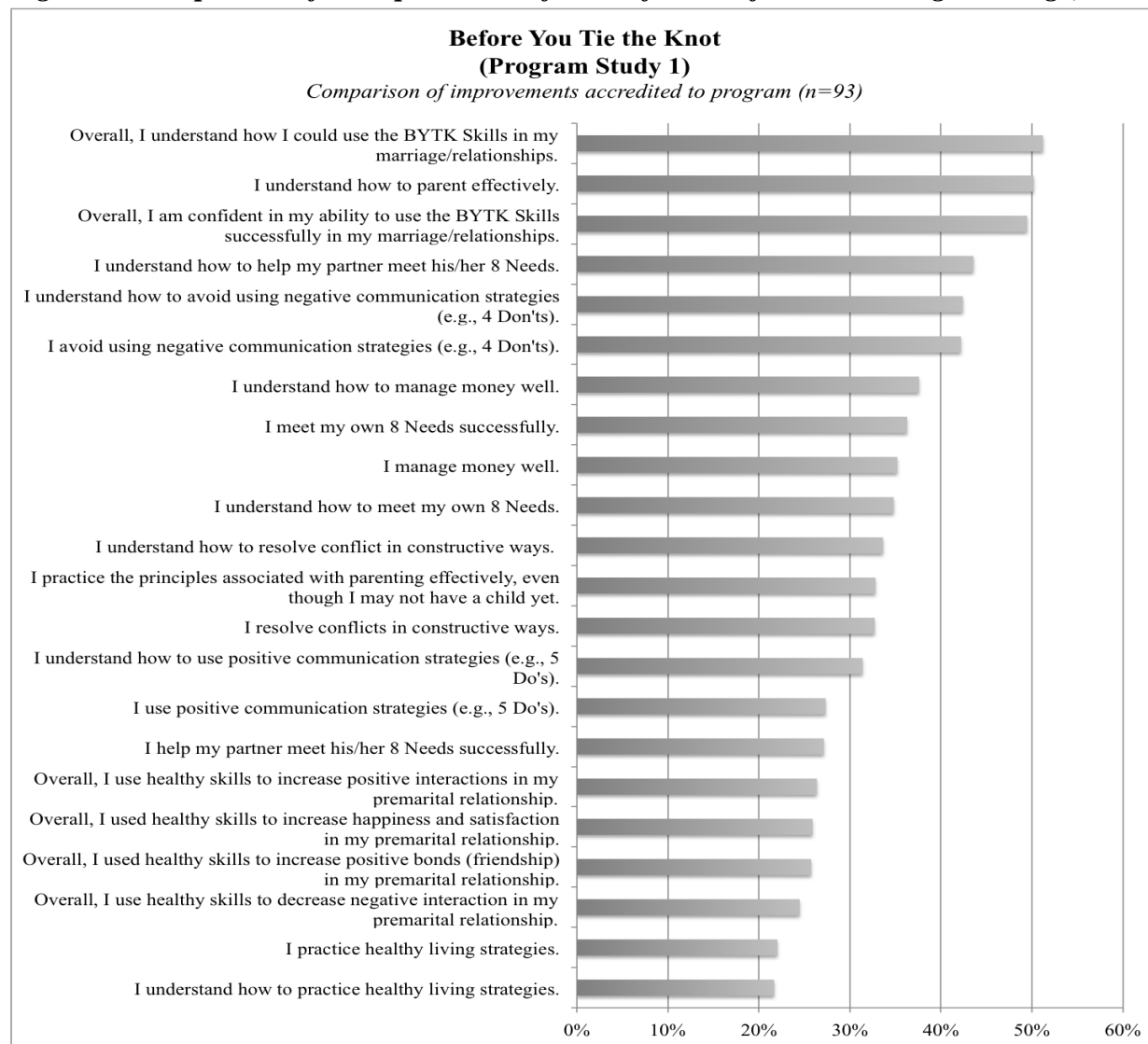
Meeting personal needs successfully, managing money well, resolving conflicts in constructive ways, avoiding using negative communication strategies, and parenting effectively were all behavioral skills reported by participants in this study that revealed over 30% improvement from before to after the *BYTK* programming intervention was administered. Practicing and understanding healthy living strategies showed the lowest levels of improvement from before to after programming, although it should be remembered that participants reported large, clearly evident standardized mean change improvement for both understanding and practicing healthy living strategies.

Discussion

Exploring the magnitude of the cognitive (Objective 1), emotional (Objective 2), and behavioral (Objective 3) learning outcome changes associated with employing the AIAI-FTFD teaching model as an intervention in designing, delivering, and evaluating the *Before You Tie the Knot* (*BYTK*) program in an online learning environment was the purpose of this study. Because it is difficult in an educational learning environment to implement true experimental or quasi-experimental designs, using a retrospective pretest-then-posttest design was a practical option for program evaluation given the inevitable challenges with this type of program (Marshall et al., 2007).

The AIAI-FTFD teaching model was designed to facilitate the process of change in an instructional setting (Harris et al., 2014; Mace, 1981). Because the model is designed to facilitate change in the teaching of any content in any context, its theoretical foundation assumes that a majority of the measured change is due to the effective use of the model and not to the specific content or the context (Harris et al., 2014). Thus, the data in this exploratory study may provide some initial support for the AIAI-FTFD teaching model as a viable instructional method for facilitating meaningful, noticeable, and clearly evident cognitive, emotional, and behavioral change (Cohen, 1988). However, the authors readily acknowledge that content and context do exert an influence on learning outcomes but suggest that without engaging instructional design and delivery this influence can be substantially weakened (Reiser & Dempsey, 2012; Vygotsky, 1978).

Objective 1. The analysis of cognitive (i.e., knowledge) standardized mean differences from before to after the *BYTK* program indicated that participants generally reported large, clearly evident increases in their understanding of how to meet their own and their partners' needs, parent effectively, resolve conflict in healthy ways, avoid using negative communication strategies, manage money well, and practice healthy lifestyles.

Objective 2. Participants reported large, clearly evident gains in their perceived ability to apply (i.e., confidence) this knowledge to practice the skills introduced throughout the *BYTK* program successfully. Similarly, participants reported overall confidence in their ability to use this knowledge revealed large, clearly evident effects, as a result of the *BYTK* program.

Objective 3. The reported cognitive and emotional (i.e., confidence) gains also resulted in participants' clearly evident overall reported increases in skills utilization and behavior changes regarding increasing positive interaction, positive bonds, and happiness/satisfaction (well-being) and decreasing negative interaction in their relationships.

The AIAI-FTFD teaching model requires instructors to identify cognitive, emotional, and behavioral target skills before teaching, to operationalize them into objectives, and then to map them throughout the teaching preparation and delivery process in order to maximize participant

learning outcomes. Providing participants with an opportunity to practice the cognitive, emotional, and behavioral target skills within the learning environment and a way to continue to practice them through homework or using a tracking chart outside of the learning environment is one way the AIAI-FTFD teaching model assists instructors to facilitate meaningful change and maximize potential learning outcomes. The application of this model is evidenced through the results described in this study specific to the *BYTK* curriculum and training.

Marshall (Harris, 2010) has identified ignorance (lack of appropriate knowledge), incompetence (lack of appropriate skills), and resistance to conscience (an unwillingness to use appropriate knowledge and skills) as three primary impediments to change. As a result, instructors' intentional targeting of knowledge, application, and skills throughout the learning process is key to increasing positive learning outcomes. With this in mind, in the current study, it is interesting to note the dynamic between participants' overall understanding and overall confidence in using the *BYTK* skills successfully in relationships. It seems clear from the data that it is generally easier to understand a needed relationship skill, but it is more difficult to gain confidence in one's ability to implement the skill successfully. Thus, focusing on instruction as an intervention that reinforces applying and practicing needed skills both during and after the program sessions (e.g., AIAI-FTFD) seems critical to achieving the targeted learning outcomes.

The current study offers additional evidence to the existing and growing body of literature that the AIAI-FTFD teaching model may be effective in facilitating change in an educational learning environment among human services educators and clients. While many models of learning and instruction target knowledge, application, and skills as important learning outcomes, few offer a specific methodology to design, implement, and evaluate these outcomes in an easy-to-learn and start-to-finish way for educators. Educators across multiple disciplines who have used and mastered the AIAI-FTFD teaching methodology have reported meaningful qualitative and quantitative gains and changes in their teaching effectiveness and learner outcomes (Harris et al., 2014, 2016). Moreover, the theoretical foundation of the AIAI-FTFD model was developed for the teaching of any content in any context, so it assumes that a majority of the measured change is due to the effective use of the model and not to the specific content or the context (Harris et al., 2014).

Limitations and Implications

Limitations of this study include the one-time cross-sectional design. As a result, it was not possible to assess how robust the self-reported changes in knowledge, confidence, and intent to change behavior were because participants were asked to self-report perceptions and intent rather than using objective measures of knowledge, observation of confidence levels, and behavior changes.

This study used a retrospective pretest-then-posttest design developed to assess the effectiveness of the *BYTK* training and how it may have influenced the outcomes reported by participants

related to the teaching model. While this type of self-reporting design can be particularly vulnerable to social desirability bias (e.g., overestimating responses to appear more positive, providing socially acceptable responses to make the instructor happy), Moore and Tananis (2009) indicated that "used with the cautions identified in the literature, the retrospective pre–posttest design seems a promising alternative to the typical pre–posttest design in settings where perception of knowledge (both pre and post) serves to evaluate program effectiveness" (p. 200).

This rationale guided the use of the design in the current study noting that multiple factors may affect learning outcomes and that further study is needed using randomized longitudinal and comparative designs (Marshall et al., 2007; Nimon, Zigarami, & Allen, 2011). Correspondingly, the study authors are highly aware that, without a comparison group that shows statistically significant differences in program intervention outcomes between groups when the AIAI-FTFD methodology is not used, the findings must be interpreted with caution.

As noted above, a major limitation of this study is the self-report nature of the survey instrument. Self-reporting by participants can provide both advantages and disadvantages in conducting research. Advantages include the ease and lack of expense associated with conducting research as well as the ability to assess individual perceptions about certain constructs and variables. Disadvantages include multiple cognitive and situational internal validity issues such as history and response bias.

Additionally, external validity issues also exist, such as population, environmental, and temporal generalization. Therefore, the results in this study, as with most exploratory studies, must be interpreted with caution. Specifically, because the sample was selected using a non-randomized methodology and included just those participants who completed the *BYTK* training and evaluation, the results of this study are limited to the sample of participants in this study only.

To address these validity issues, further studies should include random sampling of participants, comparison group designs (e.g., quasi-experimental and/or true experimental), and diverse samples to account for demographic selection bias and other threats to validity.

Practical implications of the AIAI-FTFD methodology include its potential application and use for multiple and varied educational programs to promote best practices in program design, delivery, and evaluation of intervention outcomes, such as those discussed herein. The current study represents a continuation of documenting initial exploratory evidence that the AIAI-FTFD methodology can indeed be applied to multiple intervention programs, such as *BYTK*, with similar success across programs.

Finally, using randomization and comparison groups in either quasi-experimental or true experimental designs represents a next step in validating the usefulness of the methodology.

Given the difficulty of measuring and parsing out specific pedagogy, program design, and program learning influences and outcomes using effect size to measure standardized mean change from before to after programming, this study provides an additional contribution to the growing body of knowledge that suggests that intervention-centered teaching rather than topic-centered teaching can be effective when targeting more than just knowledge gain (Gagné et al., 1992; Harris et al., 2014; Wiggins & McTighe, 2005).

Conclusions

This study represents an ongoing attempt to explore how the AIAI-FTFD teaching model can be used to facilitate change in instructional and programmatic settings. Results of this study indicate that the AIAI-FTFD teaching model did not inhibit but, indeed, may have facilitated change in cognitive, emotional, and behavioral learning outcomes among participants in this in the *BYTK* premarital program.

These initial results offer potential future directions for study of the AIAI-FTFD model, including quasi-experimental, true experimental, and longitudinal research study designs across different contexts and subject areas. Using the model to design, implement, and evaluate premarital education programming represents another tool in the toolbox that educators can use to intentionally pursue a symbiotic relationship between effective instruction and programming in an educational learning environment.

References

Allgood, S., Higgenbotham, B., Crook, R., & Skogrand, L. (2007a). *Creating rituals in stepfamilies*. Logan, UT: Utah State University Extension.

Allgood, S., Higgenbotham, B., & Skogrand, L. (2007b). *Helpful strategies to deal with ex-partners in remarriages*. Logan, UT: Utah State University Extension.

Amato, P. R., Johnson, D. R., Booth, A., & Rogers, S. L. (2003). Continuity and change in marital quality between 1980 and 2000. *Journal of Marriage and Family, 65*(1), 1–22. doi:10.1111/j.1741-3737.2003.00001.x

Anderson, L. W., & Krathwohl, D. R. (Eds.), Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives (Complete edition).* New York, NY: Longman.

Badger, R. L. (Ed.). (2007). *Ideas that work in college teaching.* Albany, NY: State University of New York Press.

Bennett, C., & Rockwell, K. (1995). *Targeting outcomes of programs (TOP): An integrated approach to planning and evaluation*. Unpublished manuscript, University of Nebraska, Lincoln.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook 1: Cognitive domain.* New York, NY: David McKay.

Brooks, L., & Gersh, T. L. (1998). Assessing the impact of diversity initiatives using the retrospective pretest design. *Journal of College Student Development*, *34*, 383–386.

Bubolz, M. M., & Sontag, S. M. (1993). Human ecology theory. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 419–448). New York, NY: Plenum.

Campbell, D. T., & Stanley, J. C. (1966). *Experimental and quasi-experimental designs for research.* Chicago, IL: Rand McNally.

Cline, F., & Fay, J. (2006). *Parenting with love and logic.* Colorado Springs, CO: NavPress.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Ealbaum Associates.

Cole, J. M. (1981, September/October). Selecting Extension teaching methods. *Journal of Extension*, 27-32. Retrieved from http://www.joe.org/joe/1981september/81-5-a4.pdf

Coplen, R. D., & MacArthur, J. D. (1982). *Developing a healthy self-image*. Provo, UT: Brigham Young University Press.

Dew, J. (2008). Debt change and marital satisfaction change in recently married couples. *Family Relations*, 57(1), 60–71. doi:10.1111/j.1741-3729.2007.00483.x

Doss, B. D., Rhoades, G. K., Stanley, S. M., Markman, H. J., & Johnson, C. A. (2009). Differential use of premarital education in first and second marriages. *Journal of Family Psychology*, *23*(2), 268–273. doi:10.1037/a0014356

Edgar, D. (1969). *Audiovisual methods in teaching* (3rd ed.). New York, NY: Holt, Rinehart & Winston.

Fawcett, E. B., Hawkins, A. J., Blanchard, V. L., & Carroll, J. S. (2010). Do premarital education programs really work? A meta-analytic study. *Family Relations*, *59*(3), 232–239. doi:10.1111/j.1741-3729.2010.00598.x

Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design* (4th ed.). Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.

Gottman, J. M. (1994a). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Gottman, J. M. (1994b). *Why marriages succeed or fail*. New York, NY: Fireside.

Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and Family, 60*(1), 5–22. doi:10.2307/353438

Gottman, J. M., & Notarius, C. I. (2000). Decade review: Observing marital interaction. *Journal of Marriage and Family*, *62*(4), 927–947. doi:10.1111/j.1741-3737.2000.00927.x

Hackathorn, J., Solomon, E. D., Blankmeyer, K. L., Tennial, R. E., & Garczynski, A. M. (2011). Learning by doing: An empirical study of active teaching techniques. *The Journal of Effective Teaching, 11*(2), 40–54. Retrieved from http://uncw.edu/cte/et/articles/Vol11_2/Hackathorn.pdf

Harris, V. W. (2009). Badger, R. L. (Ed.). (2008). Ideas that work in college teaching [Invited book review]. *Family Science Review*, *14*(2), 61–66. Retrieved from http://www.familyscienceassociation.org/sites/default/files/FSR%20Victor%20Harris%20Book%20Review%20Final.pdf

Harris, V. W. (2010). *Marriage tips & traps: 10 secrets for nurturing your marital friendship*. Plymouth, MI: Hayden-McNeil.

Harris, V. W. (2012). Ten rules for constructive conflict [Publication #FCS2314]. Retrieved from http://edis.ifas.ufl.edu/fy1276 (Also available in Spanish: FCS2314-Span)

Harris, V. W. (2014). *Tips for service providers: Healthy conflict management.* Fairfax, VA: National Resource Center for Healthy Marriage and Families. Retrieved from http://tinyurl.com/tips-for-providers-cm-p

Harris, V. W., Chartier, K., & Davis, E. (2010). AIAI – FTFD: A start-to-finish teaching model for family life education courses. *Family Science Review,15*(2), 15–23. Retrieved from http://www.familyscienceassociation.org/sites/default/files/harris%20final.pdf

Harris, V. W., Johnson, A., Olsen, K. (2013). *Balancing work and family in the real world* (2nd ed.). Plymouth, MI: Hayden-McNeil.

Harris, V. W., & Lee, T. R. (2006). Using empirically-based teaching methodologies to teach family life education topics effectively. *Journal of Teaching in Marriage and Family, 6,* 121–139.

Harris, V. W., Moen, D., & Morrow, T., Teemant, B., & Kumaran, M. (2014). Assessing the effectiveness of a start-to-finish instructional model in preparing human services and Extension educators. *Family Science Review*, *19*(1), 76–104. Retrieved from http://www.familyscienceassociation.org/sites/default/files/5%20-%20Harris%20et%20al.%202014%2019%20%281%29%20.pdf

Harris, V. W., Schramm, D. G., Marshall, J., & Lee, T. R. (2012). Marital quality, context, and interaction: A comparison of those currently receiving government assistance with those who are not. *Marriage & Family Review, 48*(4), 386–414. doi:10.1080/01494929.2012.674792

Harris, V. W., Speegle, K. C., Moen, D., & Brooker, H., & Harris, H. J. (2018). Teaching "less" better in higher education: A case study for exploring targeted skills and learning outcomes. *Family Science Review, 22*(3), 14–40. Retrieved from http://www.familyscienceassociation.org/sites/default/files/2%20-%20Harris%20-%20Teaching%20Less%20Better%20FINAL.pdf

Harris, V. W., Speegle, K. C., & Schmeer, A. (2016). Teaching as an intervention: Evaluating the AIAI-FTFD teaching model and 9 skills of communication in an Extension learning environment. *Journal of Human Sciences and Extension, 4*(1), 139–158. Retrieved from https://www.jhseonline.com/article/view/625/542

Harvard Medical School. (2019a, June 5). Marriage and men's health. *Harvard Men's Health Watch.* Retrieved from http://www.health.harvard.edu/newsletters/Harvard_Mens_Health_Watch/2010/July/marriage-and-mens-health

Harvard Medical School. (2019b, August 6). The health benefits of strong relationships. *Harvard Women's Health Watch*. Retrieved from https://www.health.harvard.edu/newsletter_article/the-health-benefits-of-strong-relationships

Hitti, M. (2007). *Get married, gain weight.* Retrieved from http://www.webmd.com/diet/news/20071024/get-married-gain-weight

Howard, G. S., & Dailey, P. R. (1979). Response-shift bias: A source of contamination of self-report measures. *Journal of Applied Psychology*, *64*(2), 144–150. doi:10.1037/0021-9010.64.2.144

Howell, D. C. (2002). *Statistical methods for psychology* (5th ed.). Pacific Grove, CA: Duxbury/Thomson Learning.

IBM Corp. (2016). *IBM SPSS statistics for windows, Version 24.0*. Armonk, NY: IBM Corp.

Kaplan, D. (Ed.). (2004). *The Sage handbook of quantitative methodology for the social sciences.* Thousand Oaks, CA: Sage.

Larson, J. H. (2003). *The great marriage tune-up book: A proven program for evaluating and renewing your relationship*. San Francisco, CA: Jossey-Bass.

Larson, J. H., & Holman, T. B. (1994). Predictors of marital quality and stability. *Family Relations, 43*(2), 228–237. doi:10.2307/585327

Latham, G. I. (2002). *Behind the schoolhouse door: Managing chaos with science, skills, and strategy*. North Logan, UT: P & T Ink.

Latham, G. I. (1994). *The power of positive parenting*. North Logan, UT: P & T Ink.

Mace, D. (1981). The long, long trail from information-giving to behavioral change. *Family Relations*, *30*(4), 599–606. doi:10.2307/584350

Markey, C. N., Markey, P. M., & Gray, H. F. (2007). Romantic relationships and health: An examination of individuals' perceptions of their romantic partners' influences on their health. *Sex Roles, 57*(5-6), 435–445. doi:10.1007/s11199-007-9266-5

Marshall, J. P., Higginbotham, B. J., Harris, V. W., & Lee, T. R. (2007). Assessing program outcomes: Rationale and benefits of posttest-then-retrospective-pretest designs. *Journal of Youth Development*, *2*(1), Article 0701RS001. doi:10.5195/jyd.2007.366

Merrill, M. D. (1991). Constructivism and instructional design. *Educational Technology*, *31*(5), 45–53.

Merrill, M. D. (1997). First principles of instruction: A synthesis. In R. A. Reiser & J. V. Dempsey (Eds.), *Trends and issues in instructional design and technology* (2nd ed., pp. 62–71). Upper Saddle River, NJ: Prentice Hall.

Michel, N., Cater, J. J., & Varela, O. (2009). Active versus passive teaching styles: An empirical study of student learning outcomes. *Human Resource Development Quarterly, 20*(4), 397–418. doi:10.1002/hrdq.20025

Moore, D., & Tananis, C. A. (2009). Measuring change in a short-term educational program using a retrospective pretest design. *American Journal of Evaluation, 30*(2), 189–202. doi:10.1177/1098214009334506

National Healthy Marriage Resource Center [NHMRC]. (n.d.). *Premarital preparation requirements in state law*. Retrieved from http://www.healthymarriageinfo.org/wp-content/uploads/2017/12//stmarriagelicfs.pdf

Nimon, K., Zigarami, D., & Allen, J. (2011). Measures of program effectiveness based on retrospective pretest data: Are all created equal? *American Journal of Evaluation, 32*(1), 8–28. doi:10.1177/1098214010378354

Online Sunshine: Official Internet Site of the Florida Legislature. (2019). *The 2019 Florida Statutes: Chapter 741: Marriage and domestic violence*. Retrieved from http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=741.0305&URL=0700-0799/0741/Sections/0741.0305.html

Paas, F., Renkl, A., & Sweller, J. (2004). Cognitive load theory: Instructional implications of the interaction between information structures and cognitive architecture. *Instructional Science, 32*(1-2), 1–8. doi:10.1023/B:TRUC.0000021806.17516.d0

Powell, L. H., & Cassidy, D. (2007). *Family life education: Working with families across the lifespan*. Long Grove, IL: Waveland Press.

Pratt, C. C., McGuigan, W. M., & Katzev, A. R. (2000). Measuring program outcomes: Using retrospective pretest methodology. *American Journal of Evaluation*, *21*(3), 341–349. doi:10.1016/S1098-2140(00)00089-8

Reiser, R. A., & Dempsey, J. V. (2012). *Trends and issues in instructional design and technology* (3rd ed.). Boston, MA: Allyn & Bacon.

Rogge, R. D., Cobb, R. J., Lawrence, E., Johnson, M. D., & Bradbury, T. N. (2013). Is skills training necessary for the primary prevention of marital distress and dissolution? A 3-year experimental study of three interventions. *Journal of Consulting and Clinical Psychology*, *81*(6), 949–961. doi:10.1037/a0034209

Roggman, L. A., Boyce, L. K., & Innocenti, M. S. (2008*). Developmental parenting: A guide for early childhood practitioners.* Baltimore, MD: Brookes.

Rosenshine, B. (1983). Teaching functions in instructional programs. *The Elementary School Journal*, 83(4), 335–351. doi:10.1086/461321

Sawilowsky, S. (2009). New effect size rules of thumb. *Journal of Modern Applied Statistical Methods*, *8*(2), 597–599. Retrieved from https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=1003&context=coe_tbf

Schramm, D. G., Marshall, J. P., Harris, V. W., & Lee, T. R. (2005). After "I do": The newlywed transition. *Marriage and Family Review*, *38*(1), 45–67. doi:10.1300/J002v38n01_05

SMARTcouples.org. (2016). *Before you tie the knot*. Retrieved from https://smartcouples.ifas.ufl.edu/classes/additional-classes/

Solomon, S. (n.d.). *Money habitudes*. Hamilton, MT: LifeWise Strategies, LLC. [Note: Money Habitudes is used as a class starter at the beginning of this module only; all materials used can be purchased through http://www.moneyhabitudes.com/about-syble-solomon/]

Stanley, S. M., Amato, P. R., Johnson, C. A., & Markman, H. J. (2006). Premarital education, marital quality, and marital stability: Findings from a large, random household survey. *Journal of Family Psychology*, *20*(1), 117–126. doi:10.1037/0893-3200.20.1.117

Stevenson, C. D., & Harris, G. K. (2014). Instruments for characterizing instructors' teaching practices: A review. *NACTA*, *58*(2), 102–108.

Teemant, B., Moen, D., Harris, V. (2013). Problem-based learning in the family sciences: A good fit in theory and practice. *Family Science Review*, *17*(2), 102–117. Retrieved from http://familyscienceassociation.org/sites/default/files/7%20-Teemont_Moen_Harris.pdf

The, N. S., & Gordon-Larsen, P. (2009). Entry into romantic partnership is associated with obesity. *Obesity, 17*, 1441–1447. doi:10.1038/oby.2009.97

Tyler, R. W. (1949). *Basic principles of curriculum and instruction* (3rd ed.). Chicago, IL: University of Chicago Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University.

Wallerstein, J. S. (1996). The psychological tasks of marriage: Part 2. *American Journal of Orthopsychiatry, 66*(2), 217–227. doi:10.1037/h0080173

Wiggins, G., & McTighe, J. (2005). *Understanding by design* (2nd expanded ed.). Alexandria, VA: ASCD.

Victor W. Harris, Ph.D., is an associate professor at the University of Florida. His research interests include couples, relationships, and effective pedagogy in couple and relationship education. He is the Director of the SMART Couples Florida project at the University of Florida.

C. Bradford Sewell, M.S., has a passion for interpreting the stories told by data. He is currently deciphering relationship narratives as the Data Manager/Analyst for the SMART Couples Florida project at the University of Florida.

Jon Anderson, M.S., is a research assistant and graduate of the Master of Science in Family, Youth, and Community Sciences program at the University of Florida. He is keenly interested in the processes whereby individuals develop social-emotional abilities.

Kyra C. Speegle, M.S., is a graduate of the Master of Science in Family, Youth, and Community Sciences program at the University of Florida. Her research interests include emerging adulthood, relationship education, and teaching pedagogy.

Heidi Jones Harris, M.S., is a graduate of the Master of Science in Instructional Design and Technology program at Concordia University Chicago. Her research interests include educational learning app development, promoting critical thinking utilizing technological tools, and best practices in the effective integration of mobile technology to expand nontraditional learning environments.