# A Comparison of Interteaching and the Learning Pathway in a Community Health Undergraduate Course

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Course

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#### Abstract

Interteaching (IT) is a teaching method based on behavior analytic techniques that uses paired discussion and student-informed clarifying lectures to teach course objectives. A number of studies suggest that IT is more effective than traditional teaching methods (i.e., lecture). However, research is needed to compare IT to other active learning strategies (i.e., strategies that foster critical thinking by engaging students in analysis, synthesis, and evaluation through discussion and active student responding). In the present study, I compared IT to an active learning strategy known as the Learning Pathway (LP) in an undergraduate community health and development course. The LP uses group work and guided self-instruction to help students address a societal issue of their choice. Results indicate that students performed slightly higher on multiple-choice quizzes during the IT condition and correctly answered more fill-in-the-blank midterm and final exam questions related to content covered in the IT condition. However, students indicated that they preferred the LP teaching method.

Keywords: Interteaching, community health and development, active learning strategies, higher education

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An estimated 19.9 million students enrolled in higher education in the United States in the fall of 2018 (National Center for Education Statistics, 2017). The mission of higher education is to educate these millions of students to be informed and engaged citizens (The National Task Force, 2012) who are prepared to contribute to economic prosperity (Spellings Commission, 2006). Although institutes of higher education in the United States have achieved many successes over the years, there remains a need for improved access, decreased costs, and new and innovative teaching methods (Spellings Commission, 2006). Active learning strategies are examples of innovative teaching methods that are more successful than traditional teaching methods (i.e., lecture; Freeman et al., 2014) and institutes of higher education recommend these strategies (Center for Teaching Excellence, 2018). Active learning strategies focus on studentcentered collaborative strategies that aid in critical thinking by requiring more than notetaking and listening to lectures (Kas-Osoka, Bradley, Coffman, & Orpinas, 2018; Pinahs-Schultz & Beck, 2016). These strategies use activities, such as discussion (Svinicki & McKeachie, 2013), and engage students in analysis, synthesis, and evaluation (Bonwell & Eison, 1991). As higher education continues to improve, it is necessary to compare different types of active learning strategies to each other (Streveler & Menekse, 2017). In order to continue creating the best possible conditions under which undergraduates can succeed, principles based on a science of human behavior can provide further guidance on how to create new methods of active learning strategies (Reed et al., 2016) that can be compared to other methods of active learning.

#### **Learning Pathway**

One active learning strategy used to teach health promotion by instructors at a

Midwestern university is the Learning Pathway (LP). Instructors use the LP to teach the Building

Healthy Communities undergraduate course and the Community Health and Development

graduate course. The LP is composed of 12 modules of workbook-like activities used to aid students in learning course objectives. Each module corresponds to a chapter in the curriculum textbook and covers one topic area (e.g., assessing community needs and resources, developing an intervention, evaluating the initiative) related to community development. Students identify societal issues (e.g., human trafficking, food insecurity) for which they are interested in finding solutions and form groups of three to five students who have a similar interest. Groups, which remain the same throughout the semester, then collaboratively complete the activities on the LP to find solutions to their issue of choice and learn about concepts related to population health. It is hypothesized that the LP increases motivation by allowing choice and builds skills in a step-by-step process through guided self-instruction. The LP encourages active learning by requiring students to work together to apply information learned from curriculum to real-world issues.

#### Interteaching

Interteaching (IT) is one approach to active learning that is based on behavior-analytic techniques and used to teach undergraduate and graduate level courses (Boyce & Hineline, 2002). An IT class begins with two students collaboratively answering questions on a study guide—called a *preparation guide*—based on readings assigned for that class in a session known as an *interteach*. After approximately 30 to 40 min of discussion, the students complete the interteach session and fill out a brief form—called a *record of interteaching*—which asks students to identify topics from the readings and preparation guides that still need clarification. The instructor then delivers a lecture on the material that the students requested be clarified; this lecture can be provided after a short break from class or at the start of the next class (Boyce & Hineline, 2002). Boyce and Hineline (2002) recommend the use of probes in the form of frequent evaluations (i.e., "quizzes," except students know what the possible questions are

beforehand) and quality points (i.e., giving students bonus points if both they and their partner receive a grade of an A or B on a question covered in the preparation guide they completed together). As Boyce and Hineline note, IT uses behavior-analytic techniques in the form of capitalizing on social contingencies in the interteach session through peer ratings and quality points and the use of reinforcement with the clarifying lectures as the students are only hearing information they requested.

Research has explored the utility of IT as an effective teaching strategy; this information is presented in Table 1. The studies included in Table 1 are the result of a PsycINFO and Google Scholar search of "interteach," and subsequent analysis of the references within the studies gathered within this search. The majority of these studies were conducted in psychology courses (56%) with undergraduates (82%) in traditional classrooms (79%). Many of these studies conducted a component analysis (32%), assessed IT without a comparison (21%), or compared IT to lectures (41%). The comparisons to lecture usually consisted of modifying IT (83%) slightly from that presented by Boyce and Hineline (2002) by not using quality points, allowing for bigger groups, using multiple preparation guides, or emphasizing one specific component of IT.

Further analysis of the studies comparing IT to other teaching methods (e.g., lecture, reading, no-intervention control) reveals that IT is equally or more effective at increasing performance on a variety of dependent variables. Table 2 displays different teaching methods compared to IT and whether IT was more effective, equally effective, or less effective than the teaching method to which it was compared. As displayed in Table 2, 78% of studies compared IT to the traditional lecture format. The majority of these studies found improved performance after the IT condition. For example, Filipiak, Rehfeldt, Heal, and Baker (2010) used a multielement

design to compare the lecture teaching method to IT with and without points for preparation guides in an undergraduate rehabilitation course. Results indicate that mean quiz scores increased by 9-12% during both IT conditions as compared to lecture, but no difference was shown between points and no points for completing guides during IT sessions. However, social validity results indicate that 55% of students reported that classes with lecture were mostly enjoyable, whereas only 36% of students reported that classes with IT were mostly enjoyable. Felderman (2016) also found IT to be more effective than lecture in an introductory psychology course at a community college. Results of this study indicated that students had statistically significantly higher scores for two of six exams (containing essays, true-or false, multiple-choice, short answer, and fill-in-the-blank questions), and higher percentage—though not statistically significant—for three other exams.

Although most studies indicate IT is more effective than alternative teaching strategies, four studies reported no difference between IT and alternative teaching methods. Zayac and Paulk (2014) compared IT to lecture in two sections of an introduction to behavior modification course with 21 undergraduates using a non-concurrent, multi-crossover, counterbalanced design. Results showed mixed findings, with statistically significant results for the lecture condition for exam 2, and statistically significant results for IT for exam 3. The other two exams showed no significant results. Results of a social validity questionnaire indicated that most students preferred lecture (53.4%) compared to IT (38.1%). In addition, most students reported that they learned more efficiently from lectures (47.6%) than IT (42.9%). Similar to Zayac and Paulk, Slezak and Faas (2017) examined the effects of IT as compared to lecture to teach APA style within an undergraduate psychology research methods and statistics course, as well as on retention and generalization using a pre- and post-test design. Results from statistical analyses of

the 13-question multiple-choice test showed a statistically significant difference between pre-test and post-test for each method, but no significant difference between posttests when comparing the two methods. However, there was a larger effect size from pre- to post-test for IT. Therefore, both methods increased acquisition, with a slight, non-statistically significant advantage with IT. Additionally, Slezark and Faas assessed retention and generalization by requiring students to turn in a draft research report two months after intervention. There was no statistically significant difference between the two groups on this draft research report.

Interteaching has also been compared to reading and a no-intervention control. For example, Saville, Zinn, and Elliott (2005) used 45-min sessions to allow participants to learn about a brief article through either an interteach session, time to read the article, a lecture, or a no-intervention control. A week after experiencing one of the conditions, participants took a multiple-choice quiz on the article. Results of a one-way mixed factorial analysis of variance (ANOVA) showed significant difference between groups, with students who participated in IT scoring significantly higher (M = 74.09, SD = 13.68) than the lecture group (M = 60.00, SD = 17.32), reading group (M = 55.22, SD = 17.29), and control group (M = 51.50, SD = 14.96).

Finally, IT has been compared to teaching-as-usual in an online course. Rieken, Dotson, Carter, and Griffith (2018) used an experimental group-control group design with 26 graduate students participating in teaching-as-usual and 22 students in the IT condition. Students in the IT condition participated in online interteach sessions using either Microsoft Skype or Lync while a teaching assistant periodically joined them to ask questions. The instructor also posted a 15-20 min clarifying lecture to a shared online learning management system. Students in the teaching-as-usual condition received the same course sequence but without the interteach session. Rieken et al. (2018) conducted a one-tailed *t* test to compare the effects of IT and teaching-as-usual on

four, 50-point quizzes, article/chapter reviews, projects, and case studies. Participants in the IT section scored significantly higher on the quizzes, article/chapter reviews, and case studies. No significant difference was found on projects.

Although IT has been shown to be effective at increasing performance on multiplechoice, fill-in-the-blank questions, and writing assignments as compared to a variety of teaching methods, gaps still remain in the literature. As displayed in Table 2, IT has yet to be compared to other active teaching methods (e.g., discussion questions, guided reading questions, writing exercises; Brown, Killingsworth, & Alavosius, 2014). In addition, the effects of IT on higher order assignments (Sturmey, Dalfen, & Fienup, 2015) and the ability to transfer skills learned in the classroom to the natural environment have not been sufficiently explored. Brown et al. (2014) recommend that future research compares IT to other teaching methods, as well as conduct more component analyses, use larger class sizes (n > 100), and use IT for science, technology, engineering, or math courses. Of note, Brown et al. state that higher education is moving toward other methods of active student learning, so it is necessary to conduct empirical comparisons of these methods with IT. Sturmey et al. (2015) also note that other measures besides multiple choice tests should be used, such as essay questions, mid-terms, and oral examination to assess understanding and knowledge integration. These researchers further note that no studies in their review collected treatment integrity data, and therefore future research in this area is necessary. Finally, Sturmey et al. (2015) note that future research should consider using programmed instruction or fluency procedures, such as say-all-fast-minute-everydayshuffle (SAFMEDS)—flashcards used to train fluency—to increase trials in the classroom. Researchers have successfully implemented SAFMEDS with undergraduates in several course types, including classes on verbal behavior (Stockwell & Eshleman, 2010), statistics (Beverley,

Hughes, & Hastings, 2009), and precision teaching (Eaton & Fox, 1983). Querol, Rosales, and Soldner (2015) also note that future research should focus on variations of IT in combination with other methods and encourage exploring the use of IT in novel subject areas.

#### **Purpose**

One such subject area where IT has not been explored is community health and development. Specifically, as fields that focus on community health and development move beyond traditional teaching methods (Institute of Medicine, 2003), research on IT in this field provides an opportunity to extend the literature on IT by comparing it to other active learning strategies. Therefore, the purpose of this study was to compare an IT structured method to an alternative active teaching method (i.e., LP) in a novel subject area.

#### Method

#### **Participants and Setting**

Participants were undergraduate students in a community health and development course at a large Midwestern university. I was the instructor of record and implemented all instructional procedures. This was my first time using IT to teach a course. A total of 18 students were enrolled in the course. One student was excluded from analysis because they were an English as a second language learner; thus, there were issues with controlling for confounding variables that may have affected performance, such as consistent and accurate use of an online translator.

Therefore, 17 students were included in the analysis. Self-reported demographic data completed on the last day of class by 16 participants can be found in Table 3. Students were mostly female (68.75%), applied behavioral science majors (68.75%), and seniors (56.25%). Participants did not receive compensation for participating in the study.

The course met on Tuesdays and Thursdays from 1:00 pm – 3:30 pm for eight weeks over the summer semester in a windowless classroom that had a maximum occupancy of 48. Seats were arranged in rows, but students moved these seats around to work in groups at the beginning of class during the LP condition and after the clarifying lecture during the IT condition. At the front of the classroom was a lecture podium and a projector screen. Students signed a consent form to use their de-identified data for dissemination on the first day of class after reviewing the form with me (see Appendix A). I left the room while they signed the consent forms and an independent researcher collected the forms and did not give them back to me until after grades had been submitted. The university's Institutional Review Board reviewed and approved the study.

#### **Dependent Variables**

The primary dependent variable was performance on weekly quizzes, which consisted of 10 multiple-choice questions. Performance was measured as average percent of questions correct across all participants. These quizzes were the same quizzes used in previous semesters, with eight questions modified in that they were changed from multiple answer to multiple-choice. Quizzes were uploaded to Blackboard—an online learning management system that aids instructors in implementing their course—in such a way that students took the quizzes online and then Blackboard automatically graded them. Questions were presented one at a time, and students were not allowed to go back once they moved to the next question. I scheduled 30 min of class for students to take the quiz, but students were informed they could have more time if necessary. No student took more than 30 min to complete any quiz during the entire semester. I manually made quizzes available immediately before students took the quizzes, and students did not leave class or take their break until they finished. Students completed the quizzes in-class at

the end of the class period during the LP condition (i.e., after hearing lectures and completing the LP questions) and in the middle of class during the IT condition (i.e., after hearing the clarifying lecture based off the record of interteaching from the previous class). Students absent during the class period that covered the material or when the quizzes were administered were able to make up the quiz at a later date; however, these make-up quiz scores were removed from the analysis because those students had not experienced the independent variable for that content.

A secondary dependent variable was performance on a subset of questions on the course's midterm and final exams. These questions were fill-in-the-blank and were questions on material exclusively covered by either the IT method or the LP method. Performance was measured as percent correct on questions averaged across participants. These questions were created specifically for this semester's exams. I graded these questions by hand. Individual questions that covered a class period missed by the student were removed from that participant's analysis.

#### **Interobserver Agreement**

I printed out and graded 35.3% of the quizzes each week to assess interobserver agreement. I used a random number generator to randomly select six students' quizzes from each week. I then compared the mark given on each question (i.e., correct or incorrect) to that given by Blackboard to see if there was agreement. In addition, a secondary observer graded 41.2% of the midterm and final fill-in-the-blank questions to compare to the score I gave. I used a random number generator to select the questions and scores (i.e., correct or incorrect) were compared question-by-question. Interobserver agreement was calculated by taking the number of agreements and dividing by the number of agreements plus number of disagreements.

Interobserver agreement was 100% across all quizzes and the midterm and final questions.

#### **Experimental Design**

I used a BCBC reversal design (Hayes, 1981) to compare the effects of the LP (B phase) and IT (C phase) on the performance of weekly quizzes. Phase changes took place after every three quizzes. This decision was made a priori to counterbalance the number of exposures across both teaching methods. Although a multielement design would also ensure equal exposure to each condition, the logistics involved in needing two classes to teach one module during the IT condition and the nature of working in the same group during the LP condition made it so the use of successive class periods simplified the implementation of both conditions. Due to the time constraints and given the goal of the study was to compare two teaching methods against one another, I did not conduct a baseline.

#### **Procedures**

I covered the syllabus (see Appendix B), the consent form, and an introduction to community health and development during the first class. On the eighth day of class (halfway through the semester) the students took the midterm. The last two days of class consisted of a quiz, poster presentations, and the final exam (see Appendix C).

Students completed several assignments over the course of the semester in addition to those listed below as part of the LP and IT. Students had to complete a Personal Plan for Learning and Serving (Fawcett & colleagues, 2019), a community project proposal, and 15 hours of service learning. Service learning requires students to partner with a community organization and complete 15 hours of student learning with the organization. Previous service learning experiences include volunteering with organizations that serve individuals who are homeless, youths in the foster care system, and individuals with special needs.

**Learning Pathway.** At the start of the LP condition, students formed groups of three to five students. I helped students form these groups by having them identify community problems they were interested in addressing (e.g., undergraduate mental health services, human trafficking, foster youth being emancipated) and then grouping students who had similar interests. Students worked in these same groups throughout both of the LP phases.

The LP condition began on the second day of class and consisted of assigning students to read one of the 16 modules of the course curriculum before coming to each class. Once in class, students split into their groups to learn how to address their self-identified problem by responding to four to 10 questions or activities related to each individual module presented in the LP (see Appendix D). Lectures that introduced concepts related to the questions and activities on the LP supplemented each module. I gave these lectures using PowerPoint slides and outlines from previous semesters, with minor revisions (e.g., deletion of slides I deemed redundant).

A typical class began with students splitting into their groups. Next, I presented a 5- to 15-min lecture that led students to the first prompt of the module on the LP. Students then had 10 to 20 min to complete the prompt (e.g., Describe what matters to people in the community. Analyze "root causes" to identify the environmental conditions and related behaviors that might contribute to the problem or goal.), while I moved throughout the groups to answer questions, provided feedback on group discussion, and provided praise for appropriate responding. Next, students came back together as a whole class and I delivered another short lecture that introduced concepts covered in the next question or activity. This continued until the students had covered and completed all the material in the module and the LP. I also periodically asked students to share their answers to the LP questions with the rest of the class. The length of the brief lectures and time given to complete the prompt varied depending on how many total prompts there were

for that class. At the end of the class period students took a quiz on the material we had just covered. An example timeline of the class in which I used the LP to teach Module 2 can be seen in Appendix E.

**Interteaching.** Interteaching sessions followed the basic method introduced by Boyce and Hineline (2002), with a few minor modifications. Before each class, students were tasked with completing a preparation guide consisting of five to eight questions (see Appendix F). These questions covered the information presented in the reading and required students to perform tasks such as defining terms and describing concepts (e.g., What are the key components of a logic model? What are social determinants of health? What are the advantages and disadvantages of qualitative and quantitative information?). In class, I broke the students into groups of two (with one group of three if there was an odd number of students in the class that day) in order to engage in an *interteach session* with their partners. I told students to work with a student they had never worked with previously. Once in pairs, I made an in-class preparation guide available on Blackboard; the guide tasked students to respond to an additional five to seven questions or activities. These additional questions and activities set the occasion for the students to synthesize information from the reading and address hypothetical situations (e.g., Given a certain context, how would you adapt a certain intervention? Create a social marketing message for decreasing distracted driving in teens). Each curriculum chapter began with an introduction that listed "Knowledge" and "Skills and Competencies" students were expected to have after going through the module, which I used to help guide the creation of these questions. The interteach session lasted approximately 45 min, and during that time I walked around the classroom to provide feedback, asked students questions related to the guides, and provide praise for appropriately answering questions. At the end of class, I led the students in a group

discussion to share answers about various questions on the preparation guides. Students then filled out a *record of interteaching* where they identified topics that needed further clarification before leaving. I created a clarifying lecture based on student identified topics from the record of interteaching and delivered it at the start of the next class.

Students also completed SAFMEDS for each module during the IT condition. I gave students eight to 10 key terms to turn into SAFMEDS for each module. I selected these terms from the section "Keywords and Concepts to listen for" at the start of each curriculum chapter. Students created these SAFMEDS cards by writing the key term on one side of the card and coming up with their own three- to five-word definition of these concepts or key terms on the other side. At the start of each interteach session, each partner attempted to give the definition of as many key terms as possible during a 1-min timing. Students then recorded the number of correct and incorrect definitions completed that day on a standard celeration chart. Students turned in the standard celeration charts at the end of the semester. In addition, during both the midterm and the final exams, students completed a 1-min timing with me. After completing this 1-min timing with me, I randomly pulled three of the key terms or concepts from their SAFMEDS pile and the student had to elaborate on the key term beyond their three to five-word definition they gave during the timing.

Therefore, a typical IT condition class period had the following structure: (a) I presented a clarifying lecture over the records of interteaching that students turned in from the previous class, (b) students took a quiz covering the module from last class and the clarifying lecture, (c) I gave students a 10-15 min break from class, (d) students divided into groups and performed SAFMEDS, (e) students completed their interteach session, (f) students had a brief whole-class discussion, and (g) finally students turned in their records of interteaching. The first interteach

session took place during the second half of class five. An example timeline of the classes in which I used IT to teach Module 7 can be seen in Appendix G.

#### **Procedural Fidelity**

To assess the degree to which the teaching interventions were implemented with fidelity an independent observer collected procedural fidelity data on one class per condition, a total of 33% of the classes. The observer assessed whether I implemented each main component of the intervention (see Appendix H). The main components of the LP condition were the following: (a) instructor gives lecture, (b) instructor provides time to complete the LP, (c) instructor provides feedback during each of the LP work times, and (d) instructor gives quiz. The main components of the IT condition were the following: (a) instructor gives lecture based on previous feedback, (b) instructor gives quiz, (c) instructor facilitates SAFMEDS timing, (d) instructor gives time for interteach session, (e) instructor provides feedback during interteach session, (f) instructor facilitates group discussion on preparation guide, and (g) instructor collects record of interteaching. The independent observer scored a "+" if I implemented the component correctly, a "-" if I implemented the component incorrectly, and an "o" if I did not implement the component. Fidelity was calculated by taking the number of steps implemented correctly per session and dividing it by the total number of steps per session and multiplying by 100 to receive a percentage. Fidelity scores were 100% for every session.

#### **Social Validity**

Sixteen students completed a social validity questionnaire on the last day of class (see Appendix I). The social validity questionnaire used a 6-point Likert-type scale (with 1 corresponding to "strongly disagree" or "not likely" and 6 corresponding to "strongly agree" or "extremely likely") to assess whether students felt they had a voice in their learning and whether

they would recommend the IT method. The questionnaire also asked students which method of instruction they preferred, which method they learned more from, and which components they found most and least useful. At the end of the questionnaire students were asked for self-reported demographic data.

#### **Data Analysis**

Visual and statistical analyses were used to examine performance on quiz and exam scores (Bourret & Pietras, 2013; Field, 2013). Statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS) Version 25. Due to the small sample size, central limit theory was not met (Field, 2013), and a normal distribution could not be assumed for the sample. Therefore, Wilcoxon signed-rank tests—paired, non-parametric tests used to compare the difference of scores within the same participants using rank sums—were used to examine differential effects on the dependent variables due to the independent variables. Effect size was determined by calculating a correlation coefficient, r, using the following equation presented by Rosenthal (1991):

$$r = \frac{z}{\sqrt{N}} \tag{1}$$

where z is the z-score produced by SPSS and N is the total number of observations. The following constituted a small to large effect size: r = 0.1 (small), r = 0.3 (medium), and r = 0.5 (large) (Cohen, 1992).

#### Results

#### Quizzes

Figure 1 displays scores on each quiz averaged across all participants. Mean quiz scores increased from the first phase of the LP (M = 90%, 95% CI [87.0, 93.0]) to the first phase of IT (M = 95.1%, 95% CI [93.1, 97.1]). Overall variability in quiz scores was similar in both phases;

however, individual quiz scores were more variable in the LP phase than the IT phase. Two data points from the IT condition overlapped with the range from the preceding LP condition. The change in level for mean quiz percent from the last data point of LP to the first data point of IT was a decrease from 92.9% to 92.5%.

Upon returning to the LP condition, average quiz scores (M = 82.1%, 95% CI [78.0, 86.1]) reduced to below initial levels; a downward mean shift of 13.1%. Variability increased from the previous phase, and the change in level from the last data point in the first IT condition to the first data point in the second phase of the LP condition was a decrease from 93.8% to 83.6%.

A final return to IT resulted in an upward mean shift of 2.1% (M = 84.2%, 95% CI [79.9, 88.5]). The level change of the last data point of the second LP condition to the first data point of the second IT condition was an increase from 82.7% to 84%. All three data points in the final phase fell within the range of preceding phase, and variability within quizzes and across the conditions are similar.

Figure 2 displays the mean quiz score for the two teaching methods for each individual participant. Twelve participants had a higher average score for IT quizzes, four had a higher average score for LP quizzes, and one showed no difference. Results of the Wilcoxon signed-rank test indicated that quiz scores were significantly higher for IT (Mdn = 90) than LP (Mdn = 88), T = 109, p = .034, r = 0.36. This represents a medium effect using Cohen's criteria of 0.3.

# Figure 3 depicts scores on fill-in-the-blank questions from the midterm and final for both LP and IT. The mean score for midterm fill-in-the-blank questions related to material covered by the LP was 59.8% (95% CI [44.6, 75.0]) and for questions covered by IT was 90.2% (95% CI

Midterm and Final Fill-in-the-blank.

[81.6, 98.8]). These average scores replicated on the final, with mean scores for those questions covered by the LP at 66.7% (95% CI [52.5, 80.8]) and for those covered by IT at 90.2% (95% CI [81.1, 99.3]).

Results of the Wilcoxon signed-ranks test indicated that midterm fill-in-the-blank question scores were significantly better for IT (Mdn = 100) than LP (Mdn = 50), T = 102.5, p = .001, r = 0.54 on the midterm. This represents a large effect using Cohen's criteria. Likewise, fill-in-the-blank question scores were significantly better for IT (Mdn = 100) than LP (Mdn = 66.7), T = 72.5, p = .008, r = 0.45 on the final. This represents a medium effect using Cohen's criteria.

#### **Social Validity**

The results of the social validity questionnaire can be found in Table 4 and Table 5. Table 4 shows that more students strongly preferred the LP (31.25%) to IT (12.5%). Also, more students thought they learned more from the LP (25%) than IT (12.5%). Students did not indicate that they felt they had a voice in one method over the other. Finally, about half of the students indicated that they recommend a class that uses IT to a peer.

Table 5 displays the results of the open-ended questions on the social validity questionnaire. Some of the aspects of IT that people seemed to enjoy included the before-class preparation guides and the clarifying lecture. Some of the aspects students found unhelpful with IT included depending on a partner and a number of the questions. Aspects of the LP that students enjoyed included being able to work with a group about a topic they chose and working while doing the lecture. Some aspects that were reported as least useful include the length of the pathways and redundancy of questions.

#### **Discussion**

The purpose of this study was to compare two types of active learning strategies in an undergraduate community health and development course. Results indicate that the majority of students averaged slightly higher quiz scores during the IT condition compared to the LP condition and that most students preferred the LP. These results suggest that further research on IT in community health and development courses is warranted.

These results replicate previous IT research in other subject areas that demonstrated equal or higher multiple-choice quiz scores following IT (e.g., Arntzen & Hoium, 2010; Goto & Schneider, 2010) and extend this research to community health and development. Interteaching is more effective than lecture (e.g., Saville et al., 2005; Saville, Zinn, Neef, Van Norman, & Ferrari, 2006), and results of this study suggest that it may also be slightly more effective than other active learning strategies on certain question types. Overall, 71% of students scored higher during IT sessions and mean quiz score was 3.5% higher for IT sessions than LP sessions. This could be the difference between a B+ and an A- for some students. Additionally, mean scores for fill-in-the-blank questions covered by IT were 27% higher than those covered by the LP.

Social validity results indicated that students preferred the LP over IT. It is possible that the response effort involved in IT is higher than the LP because students have to answer more questions, and therefore students may not like IT. Likewise, some researchers found that IT was less preferred and thought to have taught students less (e.g., Filipiak et al., 2010). However, Saville et al. (2006) and Goto and Schneider (2009) found that students preferred IT. Notably, findings from the present study are similar to those of Rosales and Soldner (2018) in that the perceived results of the two methods did not match the actual results. Students in the present study reported that working in large groups during the LP condition led to hearing more answers

and better ideas. Additionally, some students reported that during the IT condition their interteach partner was not always prepared. These comments taken together may have led some students to think they learned more with the LP.

There are a couple reasons that scores on IT may have been higher than those after the LP. First, the LP focuses on solving a real-world problem of the students' choosing. Although this may increase student motivation and may be beneficial to understanding higher concepts, it may also reduce the amount of time spent teaching key or foundational facts and concepts about the topic. However, in the IT condition, the pre-class preparation guide and SAFMEDS provided students with multiple exposures to these concepts. Additionally, the LP only asked students to complete five to eight questions per module; whereas preparation guides asked closer to 15 questions and SAFMEDS provided frequent trials with the material, providing me with several opportunities to immediately reinforce correct responses and provide feedback on incorrect responses. Evidence of increased opportunities to respond during IT is provided by Mason (2012), who found students spent more time discussing material during the IT condition than lecture. In addition, higher concepts can also be covered in IT by having an in-class preparation guide that focuses on synthesis questions.

Second, the record of interteaching may have ensured that materials covered in the lecture were appropriately tailored to students' needs and were delivered in a more consumable manner. Lectures during the LP were longer and covered more material than clarifying lectures during the IT. Notably, students chose what content would be covered during IT. This choice may increase students' motivation to pay attention during the lecture and also provides more contact with the material as review, rather than an introduction to the material.

#### **Contributions to the Literature**

Several aspects of the present study address notable gaps in the current IT literature. First, this study compares IT to a method other than lecturing. IT is more effective than lecturing (e.g., Saville et al., 2005; Saville et al., 2006; Felderman, 2006), but many class structures are moving away from lectures in favor of active learning strategies. The results of this study indicate that IT is slightly more effective than the LP and that further research comparing IT to other active teaching strategies is warranted. Second, the present study is one of the first IT studies to assess treatment integrity (Sturmey et al., 2015). Treatment integrity is important to ensure the study is technologically sound. I implemented the procedures with fidelity, which increases confidence in the results. Finally, it is the first study to extend IT to the subject area of community health and development, and thus enhances the generality of IT.

#### **Limitations and Future Research**

There are several limitations of this study. First, only multiple-choice and fill-in-the-blank questions were formally assessed, and therefore the impact of the two teaching methods on levels of understanding that are typically assessed through other question formats remains unknown. However, the midterm and final exams developed in previous classes each had two short answer questions worth five points each. Of these four questions, one question covered material from the IT condition and three from the LP condition. A brief analysis of these questions shows that students performed similarly on these questions, with a mean score for all participants for the LP questions being 4.8 (95% CI [4.7, 4.9]), and mean score for all participants for the IT question being 4.8 (95% CI [4.5, 5]). These data are depicted in figure 4. Further research should more systematically analyze higher levels of understanding. Second, by modifying IT, it is unknown which components may be responsible for the majority of learning or are most important. Third, there was no measure of quality of the preparation guide. That is, it

is likely that the preparation guide is an integral part of this method and guides can range in quality. Fourth, the LP is a teaching method developed and used by instructors at this Midwestern university, and it is unknown if it is used in other settings. Therefore, the generality of these findings to comparisons of other active student learning strategies may be minimal. However, the LP uses cooperative group learning that is similar to other active learning strategies (e.g., small-group discussions, debates).

A final limitation was that there was no counterbalancing of the two methods to control for difficulty of each individual module. Although the two methods were not counterbalanced and difficulty was not evaluated per se, an item analysis was run for every quiz after the semester to determine the quality of quiz questions (Mehrens & Lehmann, 1983; Osterlind, 1998). Osterlind (1998) suggests that questions with a p value of .40 or less should be considered for removal. Furthermore, Osterlind states there are other reasons to consider when removing items, such as looking at which answer test takers selected for individual questions. Results of the item analysis on all quizzes suggested that three questions over the course of the semester were either just above or under a p value of 0.40 (Module 6 and 12 quizzes, see Appendix J). The one question on the Module 16 quiz that was just above p value of 0.40 had every student answer the question incorrectly by choosing the same response, which, when combined with the low rate of correct answer, indicates it was an inappropriate question as well. It is also important to note that immediately following the Module 16 quiz, one student raised concerns with the two questions removed on the quiz. After removing these three questions, increases in performance can be seen in the last two phases (see figures 5 and 6). Mean scores in the second phase of LP increase to 84.5% (95% CI [80.3, 88.7]), and mean scores for the second phase of IT increases to 87.8% (95% CI [84.3, 91.4]). However, this analysis does not change the results in a significant way. As noted previously, these quizzes were from a previous semester and therefore they were not analyzed beforehand.

Future studies should continue to compare IT to other active learning strategies (e.g., discussion questions, guided reading questions, writing exercises). In addition, better measurement of higher levels of understanding should be assessed. Next, future research should continue to conduct component analyses to identify the most important aspects of IT. Treatment integrity can also be used to assess the ability of instructors without a background in behavior analysis to successfully implement IT. Finally, future research can continue to combine other behavioral teaching strategies (e.g., personalizes system of instruction, programmed instruction, direct instruction) with IT to increase its efficacy.

I can use the results of this study to improve the future courses I teach in several ways.

Because students scored slightly higher on quiz scores during the IT condition, I will continue to use the general IT procedures (e.g., clarifying lecture, preparation guide, interteach sessions).

However, I can also adjust some procedures based on the social validity data. For example, researchers have found that group size may not matter (Truelove, Saville, & Patten, 2013; cf.

Rosales & Soldner, 2018), and, given that students liked working with one small group this could be allowed in future courses. In addition, students preferred working on one issue of their choice throughout the semester, which could be worked into the in-class preparation guides. I will also continue to evaluate the methods I am using to ensure students are receiving a quality education.

In sum, the results of this study indicate that IT may be one way in which educators can use an active learning strategy to successfully create conditions for students to succeed. This study adds to a growing base of literature related to the use of active learning strategies in higher education. As millions of students dedicate countless hours to higher education in the pursuit of

becoming engaged citizens who contribute to society, it is the responsibility of institutes of higher education in the United States to meet these students' needs by implementing evidence-based practices.

#### References

- Arntzen, E., & Hoium, K. (2010). On the effectiveness of interteaching. *The Behavior Analyst Today*, 11, 155–160. http://dx.doi.org/10.1037/h0100698
- Beidas, R. S., Edmunds, J. M., Marcus, S. C., & Kendall, P. C. (2012). Training and consultation to promote implementation of an empirically supported treatment: A randomized trial.

  \*Psychiatric Services\*, 63, 660–665. <a href="https://doi.org/10.1176/appi.ps.201100401">https://doi.org/10.1176/appi.ps.201100401</a>
- Beverley, M., Hughes, J. C., & Hastings, R. P. (2009). What's the probability of that? Using SAFMEDS to increase undergraduate success with statistical concepts. *European Journal of Behavior Analysis*, 10, 235–247. <a href="https://doi.org/10.1080/15021149.2009.11434321">https://doi.org/10.1080/15021149.2009.11434321</a>
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. Washington, DC.: ERIC Clearinghouse on Higher Education.
- Bourret, J. C., & Pietras, C. J. (2013). Visual analysis in single-case research. In G. J. Madden,
  W. V. Dube, T. D. Hackenberg, G. P. Hanley, & K. A. Lattal (Eds.), APA Handbook of
  Behavior Analysis (Vol. 1). Washington, DC: American Psychological Association.
- Boyce, T. E., & Hineline, P. N. (2002). Interteaching: A strategy for enhancing the user-friendliness of behavioral arrangements in the college classroom. *The Behavior Analyst*, 25, 215–226. <a href="https://doi.org/10.1007/BF03392059">https://doi.org/10.1007/BF03392059</a>
- Brown, T. W., Killingsworth, K., & Alavosius, M. P. (2014). Interteaching: An evidence-based approach to instruction. *International Journal of Teaching and Learning in Higher Education*, 26, 132–139. Retrieved from <a href="https://eric.ed.gov/?id=EJ1043034">https://eric.ed.gov/?id=EJ1043034</a>
- Byrne, B., & Guy, R. (2016). Interteaching within a human physiology course: A comparison of first- and second-year students' learning skills and perceptions. *Advances in Physiology Education*, 40, 349–353. https://doi.org/10.1152/advan.00141.2015

- Cannella-Malone, H. I., Axe, J. B., & Parker, E. D. (2009). Interteach preparation: A comparison of the effects of answering versus generating study guide questions on quiz scores.

  \*\*Journal of the Scholarship of Teaching and Learning, 9(2), 22–35. Retrieved from <a href="https://scholarworks.iu.edu/journals/index.php/josotl/article/view/1723">https://scholarworks.iu.edu/journals/index.php/josotl/article/view/1723</a>
- Center for Teaching Excellence (2018). *An essential guide to teaching at KU*. Retrieved from https://cte.ku.edu/essential-guide-teaching-ku
- Chester, A., Kienhuis, M., & Wilson, P. (2013). Implementation of the interteaching model:

  Implications for staff. *Innovations in Education and Teaching International*, *52*, 300–309. <a href="https://doi.org/10.1080/14703297.2013.845536">https://doi.org/10.1080/14703297.2013.845536</a>
- Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155–159.
- Eaton, M., & Fox, S. (1983). Using precision teaching to teach precision teaching. *Journal of Precision Teaching, III*, 91–96.
- Emurian, H. H. (2007). Teaching Java<sup>TM</sup>: Managing instructional tactics to optimize student learning. *International Journal of Information and Communication Technology Education*, 3(4), 34-49. <a href="https://doi.org/10.4018/jicte.2007100104">https://doi.org/10.4018/jicte.2007100104</a>
- Emurian, H. H., & Zheng, P. (2010). Programmed instruction and interteaching applications to teaching Java<sup>TM</sup>: A systematic replication. *Computers in Human Behavior*, *26*, 1166–1175. https://doi.org/10.1016/j.chb.2010.03.026
- Estridge, K. M., & Owens, J. K. (2018). Effectiveness of interteaching with senior baccalaureate nursing students. *Delta Kappa Gamma Bulletin*, 84(5), 14–25.
- Fawcett, S., & colleagues (2018). *My personal plan for learning and serving*. Retrieved from <a href="https://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/servant-leadership/tools">https://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/servant-leadership/tools</a>

- Felderman, T. A. (2014). Preliminary analysis of interteaching's frequent examinations component in the community college classroom. *Journal of College Teaching & Learning*, *11*, 149-156. <a href="https://doi.org/10.19030/tlc.v11i4.8851">https://doi.org/10.19030/tlc.v11i4.8851</a>
- Felderman, T. A. (2016). A systematic replication comparing interteaching and lecture in the community college classroom. *Community College Journal of Research and Practice*, 40, 739–749. https://doi.org/10.1080/10668926.2015.1075445
- Field, A. (2013). Discovering statistics using IBM SPSS statistics (4th ed.). London: SAGE.
- Filipiak, S. N., Rehfeldt, R. A., Heal, N. A., & Baker, J. C. (2010). The effects of points for preparation guides in interteaching procedures. *European Journal of Behavior Analysis*, 11, 115–132. https://doi.org/10.1080/15021149.2010.11434338
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111, 8410–8415. https://doi.org/10.1073/pnas.1319030111
- Gayman, C. M., Hammonds, F., & Rost, K. A. (2018). Interteaching in an asynchronous online class. *Scholarship of Teaching and Learning in Psychology, 4*, 231–242. http://dx.doi.org/10.1037/stl0000126
- Goto, K., & Schneider, J. (2009). Interteaching: An innovative approach to facilitate university student learning in the field of nutrition. *Journal of Nutrition Education and Behavior*, 41, 303. https://doi.org/10.1016/j.jneb.2009.02.003
- Goto, K., & Schneider, J. (2010). Learning through teaching: Challenges and opportunities in facilitating student learning in food science and nutrition by using the interteaching

- approach. *Journal of Food Science Education*, 9, 31–35. <a href="https://doi.org/10.1111/j.1541-4329.2009.00087.x">https://doi.org/10.1111/j.1541-4329.2009.00087.x</a>
- Hayes, S. (1981). Single case experimental design and empirical clinical practice. *Journal of Consulting and Clinical Psychology*, 49, 193–211. <a href="https://doi.org/10.1037/0022-006X.49.2.193">https://doi.org/10.1037/0022-006X.49.2.193</a>
- Institute of Medicine (2003). Who will keep the public health?: Educating public health professionals for the 21st century. Washington, D.C.: The National Academies Press. <a href="https://doi.org/10.17226/10542">https://doi.org/10.17226/10542</a>
- Kas-Osoka, C. N., Bradley, L. J., Coffman, R., & Orpinas, P. (2018). Developing online modules for a "health and wellness" course: Adapting active learning strategies to the online environment. *Pedagogy in Health Promotion*, 4, 254-259.
  <a href="https://doi.org/10.1177/2373379917750167">https://doi.org/10.1177/2373379917750167</a>
- Lambert, T., & Saville, B. K. (2012). Interteaching and the testing effect: A preliminary analysis.

  Teaching of Psychology, 39, 194–198. https://doi.org/10.1177/0098628312450435
- Mason, L. L. (2012). Interteaching to increase active student responding and differentiate instruction. *Behavioral Technology Today*, 7, 1-15.
- Mehrens, W. A., & Lehmann, I. J. (1983). *Measurement and evaluation in education and psychology* (3<sup>rd</sup> ed.). New York: Thomson Learning.
- National Center for Education Statistics (2017). *Digest of education statistics*, 2017. Retrieved from <a href="https://nces.ed.gov/programs/digest/d17/tables/dt17\_105.30.asp">https://nces.ed.gov/programs/digest/d17/tables/dt17\_105.30.asp</a>
- The National Task Force (2012). *A crucible moment: College learning & democracy's future*.

  Washington, D.C: Association of American Colleges and Universities. Retrieved from <a href="https://www.aacu.org/sites/default/files/files/crucible/Crucible\_508F.pdf">https://www.aacu.org/sites/default/files/files/crucible/Crucible\_508F.pdf</a>

- Osterlind, S. J. (1998). Constructing test items: Multiple-choice, constructed-response, performance and other formats (2<sup>nd</sup> ed.). Boston: Kluwer Academic.
- Pinahs-Schultz, P., & Beck, B. (2016). Development and assessment of signature assignments to increase student engagement in undergraduate public health. *Pedagogy in Health Promotion*, 2, 206-213. https://doi.org/10.1177/2373379915606454
- Querol, B. I. D., Rosales, R., & Soldner, J. L. (2015). A comprehensive review of interteaching and its impact on student learning and satisfaction. *Scholarship of Teaching and Learning in Psychology*, 1, 390–411. http://dx.doi.org/10.1037/stl0000048
- Reed, D. D., Yanagita, B. T., Becirevic, A., Hirst, J. M., Kaplan, B. A., Eastes, E., & Hanna, T. (2016). Actively caring for higher education. In E. S. Geller (Ed.), *Applied psychology:*\*\*Actively caring for people (pp. 563-593). New York, NY: Cambridge University Press.
- Rieken, C. J., Dotson, W. H., Carter, S. L., & Griffith, A. K. (2018). An evaluation of interteaching in an asynchronous online graduate-level behavior analysis course. *Teaching of Psychology*, 45, 264–269. <a href="https://doi.org/10.1177/0098628318779275">https://doi.org/10.1177/0098628318779275</a>
- Rosales, R., & Soldner, J. L. (2018). An assessment of group size in interteaching. *Journal of the Scholarship of Teaching and Learning*, 18(2), 105–117. https://doi.org/10.14434/josotl.v18i2.22539
- Rosales, R., Soldner, J. L., & Crimando, W. (2014). Enhancing the impact of quality points in interteaching. *Journal of the Scholarship of Teaching and Learning*, 14(5), 1–11. https://doi.org/10.14434/josotlv14i5.12746
- Rosenthal, R. (1991). Meta-analytic procedures for social research. Thousand Oaks: SAGE.

- Saville, B. K., Bureau, A., Eckenrode, C., Fullerton, A., Herbert, R., Maley, M., ... Zombakis, J. (2014). Interteaching and lecture: A comparison of long-term recognition memory.

  \*Teaching of Psychology, 41, 325–329. <a href="https://doi.org/10.1177/0098628314549704">https://doi.org/10.1177/0098628314549704</a>
- Saville, B. K., Cox, T., O'Brien, S., & Vanderveldt, A. (2011). Interteaching: The impact of lectures on student performance. *Journal of Applied Behavior Analysis*, 44, 937–941. https://doi.org/10.1901/jaba.2011.44-937
- Saville, B. K., Pope, D., Lovaas, P., & Williams, J. (2012). Interteaching and the testing effect: A systematic replication. *Teaching of Psychology*, *39*, 280–283. https://doi.org/10.1177/0098628312456628
- Saville, B. K., Pope, D., Truelove, J., & Williams, J. (2012). The relation between GPA and exam performance during interteaching and lecture. *Behavior Analyst Today*, *13*, 27–31. http://dx.doi.org/10.1037/h0100728
- Saville, B. K., & Zinn, T. E. (2009). Interteaching: The effects of quality points on exam scores.

  \*\*Journal of Applied Behavior Analysis\*, 42, 369–374. <a href="https://doi.org/10.1901/jaba.2009.42-369">https://doi.org/10.1901/jaba.2009.42-369</a>

  \*\*369
- Saville, B. K., Zinn, T. E., & Elliott, M. P. (2005). Interteaching versus traditional methods of instruction: A preliminary analysis. *Teaching of Psychology*, 32, 161–163.
  <a href="https://doi.org/10.1207/s15328023top3203\_6">https://doi.org/10.1207/s15328023top3203\_6</a>
- Saville, B. K., Zinn, T. E., Neef, N. A., Norman, R. V., & Ferreri, S. J. (2006). A comparison of interteaching and lecture in the college classroom. *Journal of Applied Behavior Analysis*, 39, 49–61. <a href="https://doi.org/10.1901/jaba.2006.42-05">https://doi.org/10.1901/jaba.2006.42-05</a>
- Scoboria, A., & Pascual-Leone, A. (2009). An 'interteaching' informed approach to instructing large undergraduate classes. *Journal of the Scholarship of Teaching and Learning*, 9(3),

29–37. Retrieved from

https://scholarworks.iu.edu/journals/index.php/josotl/article/view/2140

- Slagter, T. H., & Scribner, D. L. (2014). Interteach and student engagement in political science.

  \*\*Journal of Political Science Education, 10, 81–92.\*\*

  https://doi.org/10.1080/15512169.2013.835562
- Slezak, J. M., & Faas, C. (2017). Effects of an interteaching probe on learning and generalization of American Psychological Association (APA) style. *Teaching of Psychology*, *44*, 150–154. <a href="https://doi.org/10.1177/0098628317692619">https://doi.org/10.1177/0098628317692619</a>
- Soldner, J. L., Rosales, R., Crimando, W., & Schultz, J. C. (2017). Interteaching: Application of an empirically supported behavioral teaching method in distance rehabilitation education. *Rehabilitation Research, Policy, and Education*, 31, 372–386.

  <a href="https://doi.org/10.1891/2168-6653.31.4.372">https://doi.org/10.1891/2168-6653.31.4.372</a>
- Spellings Commission (2006). A test of leadership charting the future of U.S. higher education:

  A report of the commission appointed by secretary of education Margaret Spellings.

  Washington, D.C.: U.S. Department of Education. Retrieved from

  <a href="http://www.sheeo.org/resources/publications/test-leadership">http://www.sheeo.org/resources/publications/test-leadership</a>
- Stockwell, F., & Eshleman, J. (2010). A case study using SAFMEDS to promote fluency with Skinner's verbal behavior terms. *Journal of Precision Teaching and Celeration*, 26, 33–40.
- Sturmey, P., Dalfen, S., & Fienup, D. M. (2015). Inter-teaching: A systematic review. *European Journal of Behavior Analysis*, 16, 121–130.

https://doi.org/10.1080/15021149.2015.1069655

- Streveler, R. A., & Menekse, M. (2017). Taking a closer look at active learning. *Journal of Engineering Education*, 106, 186-190. <a href="https://doi.org/10.1002/jee.20160">https://doi.org/10.1002/jee.20160</a>
- Svinicki, M., & McKeachie, W. (2013). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers* (14<sup>th</sup> ed.). Belmont, CA: Cengage Learning.
- Truelove, J. C., Saville, B. K., & Patten, R. V. (2013). Interteaching: Discussion group size and course performance. *Journal of the Scholarship of Teaching and Learning*, *13*(2), 23-30.

  Retrieved from <a href="https://scholarworks.iu.edu/journals/index.php/josotl/article/view/3200">https://scholarworks.iu.edu/journals/index.php/josotl/article/view/3200</a>
- Tsui, M. (2010). Interteaching: Students as teachers in lower-division sociology courses.

  \*Teaching Sociology, 38, 28–34. https://doi.org/10.1177/0092055X09353887
- Zayac, R. M., & Paulk, A. L. (2014). Interteaching: Its effects on exam scores in a compressed-schedule format. *Journal of the Scholarship of Teaching and Learning*, *14*(1), 1–12. https://doi.org/10.14434/josotl.v14i1.3649

# **Tables**

Table 1

Basic study information from IT literature review

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Saville, Zinn, and Elliott (2005)	Psychology	Undergraduate / 84	Simulated classroom setting	Interteaching, lecture, reading, and control	Yes - no quality points	Quiz scores - multiple-choice	Interteaching produced significantly higher results than reading and control
Saville, Zinn, Neef, Norman, and Ferreri (2006) – Study 1	Special Education	Graduate / 35	Traditional	Interteaching, lecture, reading, and control	Yes - added tickets for good discussion; no quality points for tests	Quiz scores - short answer	Mean quiz scores consistently higher for interteaching sessions
Saville et al. (2006) – Study 2	Psychology	Undergraduate / 31	Traditional	Interteaching, lecture	No	Unit tests – essay questions, fill-in-the-blank, short answer	Mean unit test scores consistently higher for interteaching session, although not as pronounced as Saville et al. (2006) Study 1
Emurian (2007)	Computer Programming	Graduate / 13 Undergraduate / 14	Traditional	Interteaching with programmed instruction and lecture	Yes – no quality points or clarifying lecture	Quiz - multiple- choice; questionnaire	Performance increased over successive assessments; students reported interteaching had value

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Scoboria and Pascual-Leone (2009)	Abnormal Psychology Course	Undergraduate / 176	Traditional	Interteaching, lecture	Yes, greater role of lecture (1/2 of class); same partners	Writing assignment	Scores on diagnostic case writing assignments after interteaching were significantly better than previous year after lectures
Saville and Zinn (2009)	Psychology	Undergraduate / 44	Traditional	Component analysis: Quality points, no quality points	n/a	Exam Scores - essay questions, fill-in-the-blank, short answer	No significant difference found
Cannella- Malone, Axe, and Parker (2009)	Special Education	Undergraduate / 7	Traditional	Component analysis: Answering study guide questions, generating prep questions	n/a	Quizzes - multiple-choice questions, fill-in- the-blank, factual short answer	No substantial difference between type of preparation, but quiz scores in the writing question condition were slightly higher
Goto and Schneider (2009)	Nutrition	Undergraduate / 54	Traditional	Interteaching	Yes - two separate preparation guides	Open-ended questions on end of year survey	Students reported guides helped them prepare for class and that interteaching helped them focus on lectures
Goto and Schneider, (2010)	Nutrition	Undergraduate / 37	Traditional	Interteaching	Yes - two separate preparation guides; groups of four	Evaluation Survey - qualitative and quantitative questions	Students reported high perceived learning outcomes
Tsui (2010)	Sociology	Undergraduate / n/a	Traditional	Interteaching	No	n/a	Reports better class attendance and student learning

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Filipiak, Rehfeldt, Heal, and Baker, (2010)	Rehabilitation Services	Undergraduate / 23	Traditional	Component analysis: Points and no points for prep guides	n/a	Quiz Scores – multiple-choice, short answer	Quiz scores higher following interteaching sessions, no difference between points and no points for guides
Emurian and Zheng (2010)	Computer Programming	Undergraduate / 16	Traditional	Interteaching with programmed instruction and lecture	Yes – no quality points or clarifying lecture	Quizzes - multiple-choice; questionnaire	Successively combining multiple instructional tactics increases student performance
Arntzen and Hoium (2010)	Social Welfare	Undergraduate / 69	Traditional	Interteaching, lecture	Yes - addition of introductory lecture	Self-reported knowledge	Higher self-reported knowledge after interteaching
Saville, Cox, O'Brien, and Vanderveldt (2011)	Research Methods	Undergraduate / 46	Traditional	Component analysis: Delayed lecture, immediate lecture, no lecture	n/a	Exams - essay questions, short answer	Higher scores for both lectures than control, no meaningful difference between immediate and delayed
Saville, Pope, Truelove, and Williams (2012)	Psychology	Undergraduate / 73	Traditional	Interteaching, lecture	Yes - no quality points	Exam - short answer, fill-in- the-blank	Interteaching higher than lecture, biggest improvements for those who had a low GPA
Lambert and Saville (2012)	Psychology	Undergraduate / 109	Simulated classroom setting	Componet analysis: postdiscussion quizzes and no postdiscussion quizzes	n/a	Quiz - multiple- choice	Postdiscussion group scored significantly worse than no postdiscussion quizzes

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Saville, Pope, Lovaas, and Williams (2012)	Psychology	Undergraduate / 58	Traditional	Component analysis: posttdiscussion quizzes and no postdiscussion quizzes	n/a	Exam - short- answer, multiple- choice, fill-in-the- blank	No difference between use of postdiscussion and no postdiscussion quiz
Beidas, Edmunds, Marcus, and Kendall (2012)	Cognitive Behavioral Therapy	Professionals working with children aged 8 - 17 with anxiety disorders / 115	Training	Interteaching, routine training, and computer training	Yes – addition of role play	Knowledge test; adherence and skill checklist	No significant differences between training modalities; consultation was effective
Mason (2012)	Special Education	Graduate / 24 Instructors / 1	Traditional	Interteaching, lecture	Yes – no quality points, no frequent test probes	Minutes students spent actively responding, number of slides presented	Students spent more time actively responding in interteaching condition; instructor used less slides during interteaching session
Truelove, Saville, and Patten (2013)	Psychology	Undergraduate / 61	Traditional	Component analysis: Group size (dyads and groups of 5)	n/a	Exams - short- answer, multiple- choice, fill-in-the- blank	No significant difference between group sizes
Chester, Kienhuis, and Wilson (2013)	Psychology	Instructors / 2 Tutors /3	Traditional	Interteaching	n/a	Themes	Themes identified - workload, roles of lecturers and tutors in interteaching, impact of interteaching on students, innovation as an opportunity for renewal, commitment to the innovation
Rosales, Soldner, and Crimando (2014)	Behavior Analysis	Undergraduate / 11	Traditional	Component analysis: Quality points	n/a	Quiz scores – fill- in-the-blank and short answer	Quiz scores better during quality points condition by a letter grade

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Zayac and Paulk (2014)	Behavior Analysis	Undergraduate / 21	Traditional- compressed summer schedule	Interteaching, lecture	Yes - no quality points	Exam scores - multiple choice, essay questions	Two exams no significant difference, one exam lecture significantly higher, one exam interteaching significantly higher
Slagter and Scribner (2014)	Political Science	Undergraduate / 60	Traditional	Interteaching	Yes - two separate preparation guides; bigger group sizes	Survey Questions	Favorable evaluation of interteaching reported by respondents
Saville et al. (2014)	Psychology	Undergraduate / 134	Simulated classroom setting	Interteaching, lecture, control	Yes - no quality points	Quiz scores – multiple-choice questions	Interteaching significantly better than lecture on all quizzes; interteaching and lecture significantly better than control
Felderman (2014)	Psychology	Undergraduate - Community College / 52	Traditional	Component Analysis: 6 tests and 12 tests	n/a	Exams – true-or- false, multiple- choice, short answer	No significant difference, exam scores for 12 test group slightly higher
Felderman (2016)	Psychology	Undergraduate  – Community  College  /46	Traditional	Interteaching, lecture	Yes – no quality points	Exams – essays, true-or-false, multiple-choice, short answer, fill- in-the-blank	Interteaching condition had significantly higher scores for two of the six exams and higher percentage, but not significant, for three other exams
Byrne and Guy (2016)	Physiology	Undergraduate / 260	Traditional	Interteaching, lecture	Unknown	Questionnaire	Unknown difference between interteaching and lecture, no significant difference between first- and second-year learning skills
Soldner, Rosales, Crimando, and Schultz (2017)	Rehabilitation	Graduate / 25	Online	Component analysis: Pair discussion and no pair discussion	No	Quizzes	Performance significantly better after pair discussion

Author (year)	Subject	Population / number	Mode of Delivery	IVs	Modified Interteaching	DVs	Results
Slezak and Faas (2017)	Psychology	Undergraduate / 30	Probe on one topic in traditional classroom	Interteaching, lecture	Yes - no quality points	Quizzes – multiple-choice, final written report	No significant difference between post-test of interteaching and lecture (although larger effect size for interteaching compared to pre-test); no significant difference on draft research report scores
Rosales and Soldner (2018)	Psychology	Undergraduate / 35	Traditional	Component analysis: Group size (dyad and groups of 4-5)	n/a	Quizzes - multiple-choice, fill-in-the-blank, short-answer	Slightly higher performance on quizzes for dyads; students preferred groups of 4-5 and perceived higher learning in groups
Rieken, Dotson, Carter, and Griffith (2018)	Behavior Analysis	Graduate / 48	Online	Interteaching, teaching-as-usual	Yes - no quality points, students had option of viewing clarifying lecture, unlimited time to for interteach session	Quizzes - multiple-choice, article/chapter reviews, projects, case studies	Significantly higher scores on quizzes, article reviews, and case studies for interteaching condition, no difference for projects
Estridge and Owens (2018)	Nursing	Undergraduate / 289	Traditional	Interteaching, lecture	Yes - no quality points	Exams -written responses	No significant difference; qualitative data indicated the themes of "deeper understanding" and "improved study habits"
Gayman, Hammonds, and Rost (2018)	Psychology	Undergraduate / 62	Online	Interteaching, lecture	Yes – use of discussion boards for interteach session rather than face-to-face interactions	Exams and final – multiple-choice and true/false questions	Interteaching condition produced more As and Bs on exams while lecture condition produced more Cs, Ds, and Fs; significantly higher scores on questions covering interteaching material on the final; students preferred interteaching

 $<sup>\</sup>overline{IV}$  = Independent Variable, DV = Dependent Variable

Table 2

Description of results from IT studies

												Results	s									
Type of Comparison	Studies	dies Self-rating		Mul	Multiple-choice Fill-in-th		n-the-b	Writing assignments e-blank (e.g., short answer, essay)		Active Student Responding			Article Reviews / Case Studies			Projects		s				
		Lower	Equal	Higher	Lower	Equa	l Higher	Lower	Equal	Higher	Lower	Equal	Higher	Lower	Equal	Higher	Lower	Equal	Higher	Lower	Equal	Higher
Interteaching vs. Lecture	Saville et al. (2005) Saville et al. (2006) - Study 1 Saville et al. (2006) - Study 2 Scoboria and Pascual-Leone (2009) Filipiak et al. (2010) Arntzen and Hoium (2010) Saville et al. (2012) Mason (2012) Saville et al. (2014) Zayac and Paulk (2014) Zlayac and Faas (2017) Felderman (2016) Estridge and Owens (2018) Gayman et al. (2018)			*		✓	* * * * *			*		*	* * * * *			*						
Interteaching vs. online teaching- as-usual	Rieken et al. (2018)						~												<b>✓</b>		✓	
Interteaching vs. Reading	Saville et al. (2005)						✓					_										
Interteaching vs. Control	Saville et al. (2005)  Saville et al. (2014)	-					<ul><li>✓</li></ul>															

Table 3 Participant Characteristics

Age, mean years (SD)	21.83 (1.24)
Year	
Junior, n (%)	2 (12.5%)
Senior, n (%)	9 (56.25%)
Fifth year, n (%)	1 (6.25%)
No response, n (%)	4 (25%)
Gender	
Female, n (%)	11 (68.75%)
Male, n (%)	1 (6.25%)
No response, n (%)	4 (25%)
Ethnicity	
White/Caucasian, n (%)	10 (62.5%)
White/Hispanic, n (%)	1 (6.25%)
African American, n (%)	1 (6.25%)
No response, n (%)	4 (25%)
Major	
ABSC, n (%)	11 (68.75%)
Other, n (%)	1 (6.25%)
No response, n (%)	4 (25%)
Minor	
ABSC, n (%)	0 (0%)
Other, n (%)	6 (37.5%)
No response	10 (62.5%)
Reasons for taking	
Requirement	9 (56.25%)
To graduate	1 (6.25%)
Need a credit	1 (6.25%)
No response	5 (31.25%)

Table 4

Results of the Social Validity Questionnaire

Question	Percentage (number) of students
Which did you prefer	
Strongly prefer interteaching	12.5 (2)
Somewhat prefer interteaching	6.25 (1)
No preference	12.5 (1)
Somewhat prefer learning pathway	37.5 (6)
Strongly prefer learning pathway	31.25 (5)
Extent of learning with interteaching and learning pathway	
Much more with interteaching	12.5 (2)
Somewhat more with interteaching	12.5 (2)
Equally well with interteaching and learning pathway	25 (4)
Somewhat more with learning pathway	25 (4)
Much more with learning pathway	25 (4)

Question	1 (Strongly disagree)	2	3	4	5	6 (Strongly agree)	Mean
Rate the extent to which you feel you had a voice in your learning during the learning pathway method	0% (0)	6.25% (1)	0% (0)	12.5% (2)	32.25% (5)	50% (8)	5.1875
Rate the extent to which you feel you had a voice in your learning during the interteaching method	0% (0)	0% (0)	6.25% (1)	6.25% (1)	50% (8)	37.5% (6)	5.1875

n=16

Question	l (Not likely)	2	3	4	5	6 (Extremely likely)	Mean
How likely is it that you would recommend a class that uses the interteaching method to a fellow student?	12.5% (2)	18.75% (3)	18.75% (3)	25% (4)	18.75% (3)	6.25% (1)	3.375

n=16

Table 5

## Results of the open-ended social validity questions

Which aspects of the interteaching method were the most useful?

- "Prep Guide before class, as well as clarifying lectures"
- "The before class prep guides that highlighted important info from the module"
- "find definitions on your own + ask clarifying questions for lecture."
- "The questions before class made it more involving to where you needed to read. It helped more on quizzes."
- "Doing the prep guides  $\rightarrow 2^{nd}$  part with a partner"
- "forces you to prep before class so you've at least looked over the reading"
- "no comment"
- "Being able to discuss questions with a partner and not just sitting and answering questions by yourself."
- "Working in a small group made both parties talk more."
- "The prep guides were a good summary of the module to look back on for the exams and paper."
- "The real life application"
- "using situations that could happen in real life"
- "Learning about different issues."
- "The clarifying lectures."
- "Did not waste time going over info everyone already knew"
- "Helped us think outside the box."

Which aspects of the interteaching method were the least useful?

- "Some of the in class prep guides"
- "The SAFMEDS were useful but the chart didn't really help me see my progress @ the end"
- "Being dependent on partner if they did their work or not."
- "Not everyone had the same knowledge so it was hard sometimes"
- "some of the question were redundant or not interesting"
- "depending on your partner to have their work done, and actually contribute to the assignment. Feel as if I am always the one that has to keep us on track."
- "Going over Prep Guide w/ partner first before doing class assignment because usually one had it done and the other didn't or both partners had the same exact answers. Kind of wasted time."
- "I didn't like the small projects we did + I thought a lot of the questions were repetitive."
- "I wish we had had a full lecture on the material then done the in class guides because I feel as though it was harder to retain the information with just the clarifying lecture."
- "some questions were hard to understand/answer"
- "creating different models/tables."
- "The prep. guides before class."
- "clarifying lectures too fast then quiz right away not enough time to process information"
- "The questions were similar."

Which aspects of the learning pathway method were the most useful?

- "Being able to pick topic, choose group, and <u>answer questions along w/ slides in</u> class"
- "practically applying the course material"
- "Group work"
- "We got to tailor it to an issue we cared about which made it more interesting"

- "We were prompted and required to work together ideas were better. Learned more this way."
- "Working in a team to help come up with ideas for a hypothetical organization. This was fun and kind of made it seem like we were getting real life experience."
- "I liked working in large groups + hearing the options + answers of many different people."
- "Doing the pathway along with the lecture was useful because we were able to put the information we just learned to use right away."
- "working with a group + clarifying lecture."
- "working in groups"
- "learning about a specific cause"
- "Collaborating w/ a group; having one 'goal' the whole time."

# Which aspects of the learning pathway method were the least useful?

- "Might have been too strung out"
- "Not knowing many realistic data about the community issue"
- "The layout of the learning pathway. Most of the questions could've been filled out w/o any understanding of readings"
- "Didn't get to meet as many new people in class"
- "Sometimes had to do it outside of class, but still prefer it over interteaching."
- "SAFMEDS"
- "The length of the pathways."
- "It was harder to see directly what the methods were when looking back."
- "some answers were repeated often"
- "Redundancy"
- "If we all didn't understand we could have done the assignment wrong"

# How would you compare these learning methods to other classes?

- "It was a more comprehensive + <u>applicable</u> approach instead of just forcing memorization for exams"
- "more independent/learning styles self-teaching"
- "I enjoy the real life application aspects of it rather than just being lectured @ w/ info"
- "Learning pathway was a great way to learn the material."
- "Very different but I liked working in groups for this method and I usually dislike group work."
- "In 509, I did interteaching but we just wrote essays."
- "I prefer being taught everything and having homework over it."
- "They are more collaborative + you get to get others perspectives/thoughts"
- "more on hands/useful"
- "N/A"

# Please provide any other feedback about the course.

- "N/A"
- "N/A"
- "Lots of material, a bit much to consume in just 8 weeks. Enjoyed the material, though."
- "No comment"
- "Don't do interteaching"

# **Figures**

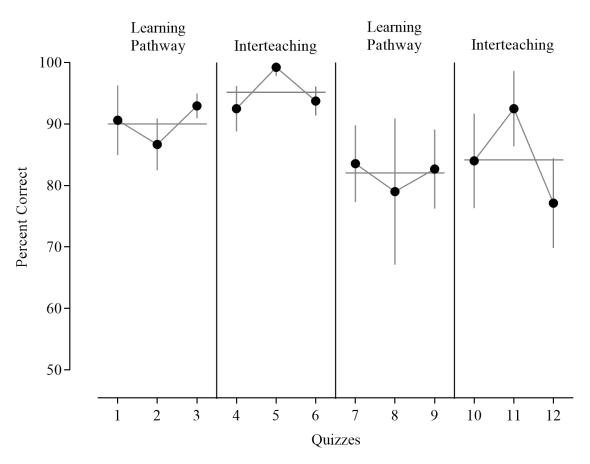


Figure 1. Quiz scores averaged across all participants with 95% confidence intervals, as well as a mean score line for the entirety of the phase. The x-axis depicts quiz number and the y-axis depicts percent correct on quizzes, beginning at 50% and ending at 100%.

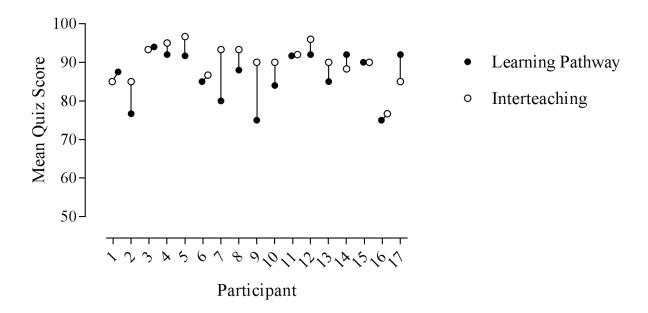


Figure 2. Mean individual quiz scores for interteaching and learning pathway. Closed circles indicated an individual's mean percent correct across all LP quizzes. Open circles indicated an individual's mean percent correct across all IT quizzes. The x-axis depicts participants, and the y-axis depicts mean quiz scores across conditions. The y-axis begins at 50% and ends at 100%.

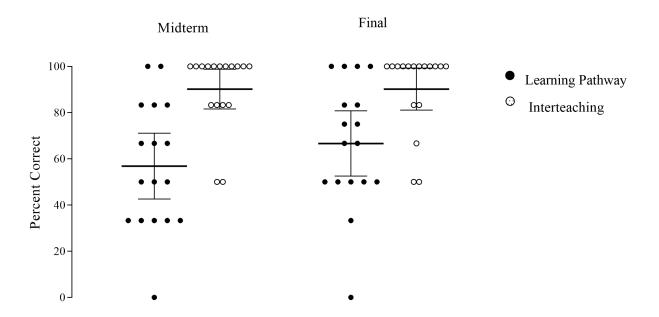


Figure 3. Mean percent correct of participants on fill-in-the-blank questions on midterm and final along with 95% confidence intervals. Closed circles indicate an individual's percent correct on questions related to LP, and open circles indicate an individual's percent correct on questions related to IT. The y-axis depicts percent correct.

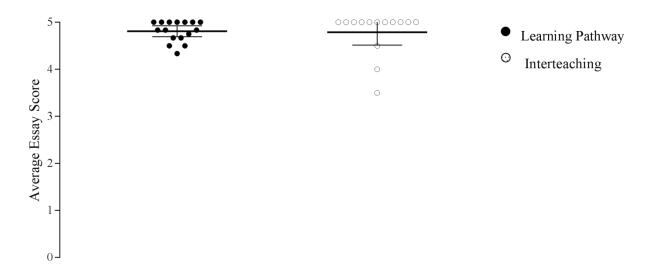


Figure 4. Average score on essay questions on midterm and final along with 95% confidence intervals. Closed circles indicate an individual's average score on questions related to LP, and open circles indicate an individual's average score on questions related to IT. The y-axis depicts average score.

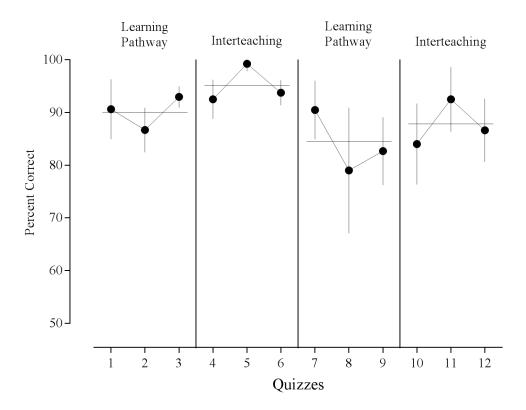


Figure 5. Quiz scores with item analysis questions removed averaged across all participants with 95% confidence intervals, as well as a mean score line for the entirety of the phase. The x-axis depicts quiz number and the y-axis depicts percent correct on quizzes, beginning at 50% and ending at 100%.

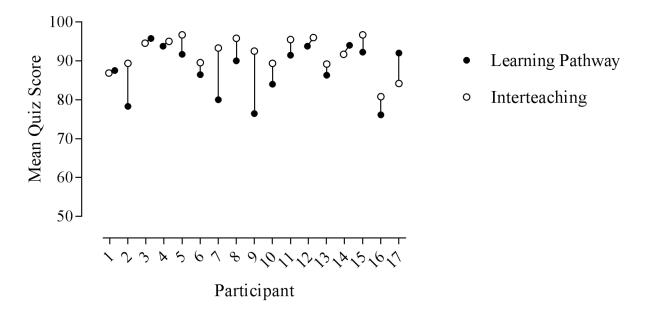


Figure 6. Mean individual quiz scores with item analysis questions removed. Closed circles indicated an individual's mean percent correct across all LP quizzes. Open circles indicated an individual's mean percent correct across all IT quizzes. The x-axis depicts participants, and the y-axis depicts mean quiz scores across conditions. The y-axis begins at 50% and ends at 100%.

# Appendix A

#### Consent Form.

#### **Comparison of Interteaching and Learning Pathway**

Consent and Authorization Form

#### Introduction

The Department of Applied Behavioral Science at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do withdraw from this study, it will not affect your relationship with the University of Kansas or the services it may provide to you.

## **Purpose**

The purpose of this research is to compare the interteaching method of teaching to the use of a learning pathway.

#### **Procedures**

You will not be asked to do anything additional for this course by signing this form. This consent form is necessary only to allow your data to be used for research purposes. This semester, we will be completing a learning pathway for half of the class and engaging in the interteaching method for the other half of the class. During learning pathway classes, a lecture will be given for the first part of class followed by group work to complete a Learning Pathway. During interteach classes, pairs of two will complete SAFMEDS (Say All Fast Minute Every Day Shuffle), discuss a study guide, and listen to a clarifying lecture over areas of the study guide that the class chooses. These procedures are required for the course and will be followed regardless of whether you sign this consent form or not. By signing this consent form, you are agreeing to allow your data to be stripped of identifying information and used for the research purpose of comparing achievement associated with the two teaching methods.

#### **Risks**

There are no anticipated risks to participants who choose to participate in this study.

#### **Benefits**

Although participation may not benefit you directly, the information obtained from this study will help us gain a better understanding of teaching undergraduates key concepts related to community health and development and allow for better designed courses in the future.

#### **Payment to Participants**

Participants will not be paid for this study.



# **Participant Confidentiality**

Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. Your identifiable information and academic records will not be shared unless (a) it is required by law or university policy, or

(b) you give written permission. Permission granted on this date to use and disclose your non-identifiable information remains in effect indefinitely. By signing this form, you give permission for the use and disclosure of your information for purposes of this study at any time in the future. The principle investigator and the faculty supervisor are the only ones who can access your academic records. If a parent or adult student requests, the school will provide them with a copy of the records disclosed.

#### **Alternatives**

You do not have to participate in this research and allowing your data to be used for research purposes is not required for the course. If you choose not to sign this consent form, there will be no consequences. Whether or not you participate will have no effect on your grade in the course. If you choose not to participate, it will not exempt you from any of course assignments. It will only affect whether or not the instructor will use your data for research purposes.

# **Cancelling This Consent and Authorization**

You may withdraw your consent to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about you, in writing, at any time, by sending your written request to:

Jonathan Schulz 1000 Sunnyside Ave. Department of Applied Behavioral Sciences University of Kansas Lawrence, KS 66045

If you cancel permission to use your information, the researchers will stop collecting additional information about you. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

#### **Questions**

Before signing this form, Jonathan Schulz will answer any questions that you have. Please feel free to talk to the researcher about any more questions or concerns even after signing this form. If you have any questions about your rights as a participant in research, you can contact the Human Subjects Protection Office at (785) 864-7429 or by emailing <u>irb@ku.edu</u>.



# **Procedures for Obtaining Consent**

In order to ensure grades are not influenced by participating in this study, the grading instructor will not know whether you signed this consent form until after final grades have been turned in. After all questions are answered, the principal investigator will leave the room and signed consent forms will be collected by another researcher and placed into a sealed envelope until the semester is over. This secondary researcher will hold on to these signed consent forms until after grades are turned in so that the principal investigator does not have access to the forms.

#### PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email irb@ku.edu.

I agree to take part in this study as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

Print Participant's Name		
Signature of Participant	Time	Date

Jonathan Schulz, MS
Principal Investigator
Graduate Teaching Assistant,
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# Appendix B

Syllabus.

# **ABSC 310: Building Healthy Communities**

Course Syllabus, Summer 2018

Instructor/Teaching Assistant: Jay Schulz, MS

Email: jayschulz@ku.edu

4082 Dole Human Development Center / (785) 864 – 0662

Department of Applied Behavioral Science

Office Hours: Wednesday, 12:00 pm – 2:00 pm or by appointment

**Course Meeting Time:** Tuesdays and Thursdays 1:00 – 3:30 p.m. **Course Meeting Place:** Dole HDC 2094

"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not."

- Dr. Seuss, The Lorax

#### **COURSE OBJECTIVES:**

- 1) Increase knowledge about methods used to address community problems and goals (e.g., substance abuse, violence, academic success, child health and development, youth development, healthy lifestyles, independent living, international health).
- 2) Enhance core competencies related to community research and intervention (e.g., assessing community needs and resources, analyzing problems, strategic planning, designing interventions, evaluating interventions, social marketing and dissemination)

#### LEARNING STRATEGIES:

- Increase knowledge about methods for promoting community health and development through class lectures, interteach sessions, readings and quizzes, and discussion and dialogue with other students.
- Develop core competencies through training, case examples, and completion of plans to address a community problem or goal of interest (e.g., design an intervention or develop an evaluation for addressing a specific community problem or goal).
- Enhance experience and competence in community health and development efforts by engaging in a service-learning experience.

#### **COURSE MATERIALS:**

(1) Most Course Materials will be available on the KU Blackboard site at <a href="http://courseware.ku.edu">http://courseware.ku.edu</a>. This includes the course syllabus, selected readings, and assignments. They may be printed or retrieved directly from Blackboard.

- (2) Community Tool Box Curriculum Volume 1 and 2. Lawrence, Kansas: Center (Work Group) for Community Health and Development, University of Kansas. [Available for purchase as PDFs (\$70) on the Community Tool Box web site <a href="http://ctb.ku.edu/en/training-curriculum">http://ctb.ku.edu/en/training-curriculum</a> Click on the orange "Order Now" button, and then select the ABSC 310/311/710 Student Guides at the bottom of the next page. You will need to pay by credit card (secure transaction).] These two volumes include 16 different Curriculum Modules used in the course.
- (3) Some supplemental readings can be accessed from the Internet-based Community Tool Box <a href="http://ctb.ku.edu/">http://ctb.ku.edu/</a>. The Tool Box provides a free and flexible online "textbook." To find sections of interest—from the homepage, click on "Do the Work" and then the narrative outline and examples for topics of interest; or use the "Search" feature. The Community Tool Box ensures access to resources for building healthy communities both during and after the course.

#### MAJOR TOPICS AND LEARNING PATHWAY:

The learning for this course follows a path covering six major topics that address twelve different competencies. Each competency is taught using a distinct Curriculum Module.

# I. Understanding the Problem and the Community

- A. Assessing Community Needs and Resources (Module 2)
- B. Analyzing Problems and Goals (Module 3)

# **II. Planning and Intervention**

- A. Developing Strategic and Action Plans (Module 5)
- B. Developing a Framework or Model of Change (Module 4)
- C. Developing an Intervention (Module 7)

# III. Developing a Collaborative Team

- A. Creating and Maintaining Coalitions and Partnerships (Module 1)
- B. Building Leadership (Module 6)
- C. Enhancing Cultural Competence (Module 9)

# IV. Advocating and Promoting Change

- A. Advocating for Change (Module 10)
- B. Implementing a Social Marketing Effort (Module 13)

#### V. Evaluating the Effort

A. Evaluating the Initiative (Module 12)

# **VI. Sustaining the Work**

A. Sustaining the Work or Initiative (Module 16)

## **COURSE ASSIGNMENTS**

Course requirements include completing assigned weekly readings, learning pathways, quizzes, various activities, and a project proposal that apply core skills to a community problem or goal. This course will be taught using two different teaching methods. In order to demonstrate key

skills during the first method, students will complete learning pathway assignments related to a topic of their choice as well as weekly quizzes. A description of the learning pathway can be found below:

Products of Learning Pathway (6 x 10 points each = 60 points): The Learning Pathway will provide students with a simulated experience to support practice in implementing the tasks related to each competency area. The Learning Pathway will be the weekly assignment during half of the semester to assist students in applying the course content. Based on a topic of your groups choosing, each team will complete the Learning Pathway activities related to the community problem or goal for each competency area/curriculum module (e.g., developing a strategic plan, plan for intervention, or evaluation plan). The development of the Learning Pathway will be facilitated through a group-based learning process.

Weekly Quizzes (6 x 10 points each = 60 points): Weekly quizzes that cover the corresponding module will be given at the end of class. Each quiz will consist of 10 multiple choice questions.

<u>Peer Evaluations (10 points)</u>: Towards the end of the semester when the Learning Pathway is complete, each student will provide a confidential rating (10-point scale; 10 being the highest, 1 being the lowest) for each member of the team on their individual contributions to the Learning Pathway products.

The other half of the class will be taught using the interteaching method. In order for students to demonstrate key skills during this method, they will need to complete SAFMEDS (Say All Fast Minute Every Day Shuffle), an interteaching preparation guide, a record of interteaching, and weekly quizzes. A detailed description of the assignments can be found below:

SAFMEDS (Say All Fast Minute Every Day Shuffle) (10 points): SAFMEDS are a technique to develop a well-retained vocabulary of key terms. They are like flashcards, only instead of learning definitions to mastery; you will learn them to fluency. This means you will have to define the vocabulary words at a high rate. Therefore, you will want your definitions to be very concise (3 – 5 words). You will record your SAFMEDS test results on rate graphs that we will discuss in class. These measures will also be taken in class. During the midterm and the final, you will perform the test in front of the instructor, and answer 3 questions related to random selected vocabulary terms. You will also hand-in or upload to BlackBoard your celeration chart at the end of the semester.

<u>Preparation Guide/Record of Interteaching (6 x 10 = 60 points)</u>: Each week during the interteaching method, students will break into groups of two and answer a list of questions provided at the start of class. At the end of the interteaching session, students will fill out a record of interteaching and turn it in to the instructor. These records will be worth 10 points each, and will be used to create the lecture for the start of next class.</u>

Weekly Quizzes (6 x10 points each = 60 points): Weekly quizzes that cover the corresponding module will be given after the lecture that begins the class. Each quiz will consist of 10 multiple choice questions.

A few other assignments will be due throughout the course that allow students to demonstrate key skills covered during both teaching methods. These assignments include a personal plan for learning and service, service-learning requirements, community project proposal, a midterm, and a final. Detailed descriptions of these assignments can be found below.

<u>Syllabus Agreement (5 points)</u>: Students will be required to sign the syllabus agreement at the end of the syllabus and either hand it in or upload it to blackboard.

<u>Service-Learning Requirements</u>: Students will be expected to engage in a minimum of 15 hours of service at an instructor-approved service-learning site during the semester. The student is responsible for negotiating with the service site the service schedule and arrangement. Products related to the service-learning requirements include the following:

<u>Win-Win Agreement (10 points)</u>: This agreement outlines what the student and community organization expects to give and receive from each other in the service-learning project. It summarizes what success would look like for each student and for the participating community organization or client group served.

<u>SARCs</u> ( $2 \times 10 = 20 \text{ points}$ ): Two service SARCS will be completed to reflect on the service experience. The SARC report should be minimally, one paragraph for each S-A-R-C component. Each of the questions following See, Act, Reflect, and Change should be addressed in your response. SARC reflections should include:

- <u>See</u>: What are you seeing or learning about building healthy communities based on the service experience? What are you seeing in your service-learning situation (project)? How does the situation affect those who are experiencing it? How does it affect you?
- Act: What are you doing as a part of your service-learning experience? What are you doing well in your service-learning work? What are you doing less well? What conditions or supports would enable you to optimize your service and learning? How are you applying the course content to your life or service experiences?
- Reflect: What are you learning? What are you contributing? What does it mean to those you serve and/or to you? How has the service experience enhanced your understanding of community leadership and/or building healthy communities?
- <u>Change:</u> What improvements resulted from your service-learning activities? What changes should be brought about to improve the situation (project)? How are you changed by what you are seeing, doing and learning BOTH through the course activities, including service-learning?

<u>Supervisor's Rating (20 points)</u>: A rating form that evaluates your performance at your service-learning site will be provided. You will need to ask your supervisor

at your service-learning site to fill the form out at the end of the semester and email it to the instructor.

Service Reflection Poster (50 points): Each student will create a digital poster presentation of their service-learning experience. The poster will include the following information: Your Personal Profile, Service-Learning Contributions by Leadership Student, Your Learning, and the Meaning of Your Service-Learning Experience. Your poster should be presented in a fun and visually appealing manner. In the past, students have included pictures, images, and graphics to help present their information. A guide for the assignment will be provided.

<u>Personal Plan for Learning and Service (10 points)</u>: Each student will reflect on: a) your personal vision and mission, b) discernment of your interests, c) assets and needs for the work, d) communication and final discernment, and e) your overall service-learning plan. The questions in the report invite you to explore how it is that you prepare yourself to make a difference on things that matter to you and those you serve.

Community Project Proposal (50 points): The project proposal will be the culminating assignment in the course. This project proposal will be the integration and demonstration of knowledge and skills gained through the course. Students will develop an individual proposal to address a community-level problem (usually the same one addressed in the Learning Pathway throughout the semester) that is of importance to them in a selected community. Often the project proposal has been used by students to develop and obtain feedback on a community concept that is later implemented by the student after the course.

#### **COURSE POLICIES**

<u>Late and Missing Assignments</u>: All assignments are due on the date indicated in the course calendar. *No assignments can be submitted after the due date, unless due to an excused emergency. If an assignment is not submitted by the due date, a grade of 0 will be recorded.* If a student misses class, a grade of 0 will be recorded. NOTE: There are very few reasons why a student should fail to complete an assignment by the due date.

- Students will be allowed to make up two missed quizzes without a **documented** acceptable reason (i.e., illness or accident documented by a note from a physician; documented death in the immediate family; religious holiday). Students seeking a make-up quiz must contact the instructors within 48 hours after the class missed. The quiz must be made up by appointment with the instructor and taken within one week after the in-class quiz was given. A grade of 0 will be recorded for all missed quizzes.
- Should a student have a serious or documented barrier to completing an assignment (for example, a long illness verified by a note from a physician), a contract for completing the work must be negotiated with the instructors. If possible, this is done before the assignment is due; if necessary, this is done the day the student returns to class (e.g., after a long illness).
- Any student with three or more incomplete (i.e., missing assignments) will receive an

automatic 10% point reduction (one letter point) in their final grade.

<u>Privacy of Student Information</u>- The course instructors will not electronically communicate any information by email that can compromise the privacy of student records. Student information including grades or student ID numbers should not be disseminated through email communication. The instructors will maintain grades in Blackboard, and will not respond to request for transmission of grades through email. Students also should not include student ID numbers in email communications with instructors or other KU staff, faculty or students.

A Note for Students with Disability: If you have any disability that requires reasonable accommodations, or provides challenges to full participation in this class, please see the instructors as soon as possible. Please provide written documentation of the disability and be prepared to recommend reasonable accommodations. If you need a note taker, please get a signed permission statement from the Student Disability Services Office.

A Note on Academic Misconduct: We expect that all written assignments that students turn in will be their original work. Of course, you will need to read material and you may talk to other people to prepare your written work. If you directly use ideas from others, then you should cite the other people (their writings or their speech). If you quote them directly, you should indicate this by the use of quotation marks and an appropriate citation. Other than when you are quoting someone directly, however, your written work should be your own (in your own words). We do not anticipate any problems of academic misconduct. But, for your information, Article II, Section 6 of the Rules and Regulations of the University Senate, defines academic misconduct:

Academic misconduct by a student shall include, but not be limited to, disruption of classes, giving or receiving of unauthorized aid on examinations or in the preparation of reports or other assignments, knowingly misrepresenting the source of any academic work, falsification of research results, plagiarizing of another's work, violation of regulations or ethical codes for the treatment of human subjects, or otherwise acting dishonestly in research.

Should we suspect an instance of academic misconduct, the student will be informed of the infraction and the penalty to be imposed. If appropriate, the matter will be forwarded to the Departmental Chairperson and Dean of the College for mediation/action. Potential sanctions include a warning, an admonition, censure, reduction of grade (including a grade of F for the course), disciplinary probation, suspension, or expulsion.

A Note on Intellectual Property: Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. On request, the instructor will usually grant permission for students to audio tape lectures, on the condition that these audio tapes are only used as a study aid by the individual making the recording. Unless explicit permission is obtained from the instructor, recordings of lectures and review sessions may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course. (Faculty Senate Executive Committee)

A Note on Disruptive Behavior: The scope and content of the material included in this course are defined by the instructor in consultation with the responsible academic unit. While the orderly exchange of ideas, including questions and discussions prompted by lectures, discussion sessions and laboratories, is viewed as a normal part of the educational environment, the instructor has the right to limit the scope and duration of these interactions. Students who engage in disruptive behavior, including persistent refusal to observe boundaries defined by the instructor regarding inappropriate talking, discussions, and questions in the classroom or laboratory may be subject to discipline for non-academic misconduct for disruption of teaching or academic misconduct, as defined in the Code of Student Rights and Responsibilities (CSRR), Article 22, Section C, and the University Senate Rules and Regulations, Section 2.4.6. Article 22 of CSRR also defines potential sanctions for these types of infractions."

Laptops are permitted to be used in class ONLY for the purposes of recording notes and in-class exercises. If you use a laptop in class, please type softly. All other electronic devices (e.g., phones, PDAs) should be turned off and put away during class. All other in-class uses of computers or PDAs, such as accessing the Internet or writing text messages or emails, will be considered disruptive behavior and subject to sanctions.

<u>Concealed Carry and KU Weapons Policy</u>- Individuals who choose to carry concealed handguns are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and KU weapons policy. Safety measures outlined in the KU weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the constant control of the carrier.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

<u>Course changes:</u> The syllabus and course calendar may be subject to change by the instructors, as deemed necessary.

# DEPARTMENT OF APPLIED BEHAVIORAL SCIENCE STATEMENT ON DIVERSITY, EQUITY, AND INCLUSION

In the Department of Applied Behavioral Science, we understand that an equitable and safe multiracial, multiethnic, and multicultural environment produces innovative thinking, research and learning. We seek to provide an environment for learning and working where differences are valued and each person in the ABS community is supported and offered an equitable opportunity – irrespective of national origin, age, sex, health status, sexual orientation, gender identity, religion, or ability – to achieve their academic and professional goals. These efforts are led by our Diversity, Equity, and Inclusion Committee and are supported by our faculty and staff.

**COURSE GRADES:** The course assignments and point values follow

	Assignment	Explanation	Points Available
1	Syllabus Agreement	Completed handout	5
2	Products of Learning Pathway	Student teams submit a learning pathway each week during the Learning Pathway method	60
3	Peer Evaluation	Students provide a rating for the contribution of each member of the student team to the learning products	10
4	Weekly Quizzes	12 Quizzes at 10 points each	120
5	SAFMEDS	Daily timings and demonstration of timing at midterm and final. Celeration chart to be turned in at last class	10
6	Preparation Guide for Interteaching	Students will turn in 6 records of interteaching at the end of each interteach. Each one is worth 10 points	60
7	Service-Learning Project – Win-Win Agreement	Agreement with community supervisor for service-learning experience	10
8	Service-Learning Project – SARCs	Two brief SARC reports (10 points each)	20
9	Service-Learning Project – Community Supervisor's Rating	On the quality and quantity of the service-learning from the perspective of the community supervisor	20
10	Service-Learning Project – Service Reflection Poster	Poster summarizing student service and course learnings	50
11	Personal Plan for Service Learning	Completed handout	10

12	Community Project Proposal	Students will individually submit a full project proposal to guide a community project	50
13	Application Exams I and II	In-class midterm and final where students demonstrate an understanding of class objectives, 2 exams (60 points each)	120
	Total points possible		545

Final grades will be computed using these standard percentages:

- 90%-100% of total possible points = A
- 80%–89% of total possible points = B
- 70%–79% of total possible points = C
- 60%–69% of total possible points = D
- <60% of total possible points = F

# SCHEDULE OF TOPICS AND ASSIGNMENTS

Week	Date	Due before class	In-class
1	June 5, 2018	N/A	<ul> <li>Syllabus</li> <li>Consent Form</li> <li>Intro to Community Health and Development</li> <li>Break into Groups</li> </ul>
	June 7, 2018	• Read Module 2 • Syllabus agreement	<ul><li>Lecture on Module 2</li><li>Learning Pathway I. A</li><li>Quiz</li></ul>
2	June 12, 2018	<ul><li>Learning Pathway 1A</li><li>Read Module 3</li><li>Personal Plan for Learning</li></ul>	<ul><li>Lecture on Module 3</li><li>Learning Pathway I. B</li><li>Quiz</li></ul>
	June 14, 2018	• Learning Pathway I. B • Read Module 5	<ul><li>Lecture on Module 5</li><li>Learning Pathway II. A</li><li>Quiz</li></ul>
3	June 19, 2018	<ul> <li>Learning Pathway II. A</li> <li>Read Module 4</li> <li>Win-win agreement</li> </ul>	<ul> <li>Class discussion and social validity on Learning Pathway and Service Learning to this point</li> <li>Module 4         <ul> <li>SAFMEDS</li> <li>Interteaching</li> <li>Turn in Record of Interteaching</li> </ul> </li> </ul>
	June 21, 2018	• Read Module 7	<ul> <li>Module 4         <ul> <li>Lecture based on Record of Interteaching</li> <li>Quiz</li> </ul> </li> <li>Module 7         <ul> <li>SAFMEDS</li> <li>Interteaching</li> </ul> </li> </ul>
4	June 26, 2018	• Read Module 1 • First SARC	<ul> <li>Module 7 <ul> <li>Lecture</li> <li>Quiz</li> </ul> </li> <li>Module 1 <ul> <li>SAFMEDS</li> <li>Interteaching</li> </ul> </li> </ul>
	June 28, 2018	N/A	• Module 1  ○Lecture  ○Quiz  Midterm  Mid-semester course evaluation

5	July 3, 2018	• Read Module 6	<ul><li>Lecture on Module 6</li><li>Learning Pathway III. B</li><li>Quiz</li></ul>
	July 5, 2018	• Learning Pathway III. B • Read Module 9	<ul><li>Lecture on Module 9</li><li>Learning Pathway III. C</li><li>Quiz</li></ul>
6	July 10, 2018	• Learning Pathway III. C • Read Module 10	<ul><li>Lecture on Module 10</li><li>Learning Pathway IV. A</li><li>Quiz</li></ul>
	July 12, 2018	• Learning Pathway IV. A • Read Module 13	<ul> <li>Class discussion/social validity</li> <li>Module 13 <ul> <li>SAFMEDS</li> <li>Interteaching</li> </ul> </li> </ul>
7	July 17, 2018	<ul><li>Read Module 12</li><li>Peer evaluations</li></ul>	<ul> <li>Module 13 <ul> <li>Lecture</li> <li>Quiz</li> </ul> </li> <li>Module 12 <ul> <li>SAFMEDS</li> <li>Interteaching</li> </ul> </li> </ul>
	July 19, 2018	<ul> <li>Read Module 16</li> <li>Second SARC</li> <li>Supervisor's Rating Form</li> </ul>	<ul> <li>Module 12 <ul> <li>○Lecture</li> <li>○Quiz</li> </ul> </li> <li>Module 16 <ul> <li>○SAFMEDS</li> <li>○Interteaching</li> </ul> </li> </ul>
8	July 24, 2018	Service Learning Posters –     uploaded to Blackboard	<ul> <li>Module 16         <ul> <li>Lecture</li> <li>Quiz</li> </ul> </li> <li>Fill out course evaluations and social validity questionnaire</li> <li>Present Posters</li> <li>Review for final</li> </ul>
	July 26, 2018	<ul> <li>Proposal uploaded to BlackBoard</li> <li>Celeration Chart uploaded to BlackBoard</li> </ul>	Final

#### **SYLLABUS AGREEMENT FORM**

# I acknowledge that I have received and read the course syllabus for: ABSC 310: Building Healthy Communities for the *Summer 2018* semester

- I have read the syllabus (either in paper or online), and I understand the classroom policies, course expectations, requirements and policies as stated in the syllabus for this course.
- If I have any questions or concerns, I will contact the instructor, Jay Schulz, for further explanation.
- I understand that I am responsible for fulfilling all course requirements and completing all assignments by the due dates as outlined in the syllabus.
- I also understand that I represent myself, my instructor/course, and the University of Kansas at my service site. I will ensure that I maintain high professional conduct in class, as well as in the community at my service site.
- I agree to be prepared for class and engage as an active participate in class activities both conducted through online and in-person supports.

By signing this form, I acknowledge that I have read the syllabus in full and understand the syllabus content and agreement:

Signed Name:	 		—
Printed Name:			
Date:			

# **Appendix C**

# Course schedule.

Week	Tuesday	Thursday	
1	Syllabus / Intro to Course	<i>'      </i>     *	<b>////</b> = Learning Pathway
2	<i>*************************************</i>	**************************************	===== Interteaching
3	Service-Learning Discussion	*	
4	* 1111111111111111111111111111111111111	* - Midterm	
5		·/////////////////////////////////////	
6	<i>*************************************</i>	Service-Learning Discussion	
7	* *************************************	* *************************************	
8	Poster  * Presentations	Final	

<sup>\*</sup> indicates that a quiz, and therefore a data point on graphs, was taken on that day. An asterisk on the right side of the box indicates that the quiz was taken at the end of class. An asterisk on the left side of the box indicates the quiz was taken after the first half of the class. Triangles depict when only part of the class period was covered using the indicated method.

## Appendix D

## Learning Pathway.

## PRODUCT OF THE LEARNING PATHWAY

ABS 310: Building Healthy Communities

## Project Title (related to your problem/goal):

## **Team/Author Name(s)**:

## **LEARNING PATHWAY:**

## I. Understanding the Community and the Problem/Goal

- A. Assessing Community Needs and Resources (Curriculum Module 2)
- B. Analyzing Problems and Goals (Module 3)

## II. Planning and Intervention

- A. <u>Developing Strategic and Action Plans (Module 5)</u>
- B. Developing a Framework or Model of Change (Module 4)
- C. <u>Developing an Intervention (Module 7)</u>

## III. Developing a Collaborative Team

- A. Creating and Maintaining Coalitions and Partnerships (Module 1)
- B. Building Leadership (Module 6)
- C. Enhancing Cultural Competence (Module 9)

## IV. Advocating and Promoting Change

- A. Advocating for Change (Module 10)
- B. Implementing a Social Marketing Effort (Module 13)

## V. Evaluating and Sustaining the Effort

- A. Evaluating the Initiative (Module 12)
- B. Sustaining the Work or Initiative (Module 16)

Overview and Orientation: This course covers five major topics that address twelve different competencies. The product or result of learning will be displayed in your responses for specific tasks related to each competency (e.g., tasks involved in developing a strategic plan or intervention).

Supports for learning are found in the Participant Guides for different modules of the Community Tool Box (CTB) Curriculum. Your learning and future application will also benefit from free and ongoing access to online CTB Toolkits (e.g., how-to steps and examples) found in the publicly-available Community Tool Box (CTB) <a href="http://ctb.ku.edu/en/dothework/index.htm">http://ctb.ku.edu/en/dothework/index.htm</a>. Guided lectures and group dialogues will also help in learning each competency. During the course, there will be opportunities to practice and receive feedback in applying the learning to your group's unique situation and context.

Please provide a complete response for the selected tasks using short paragraphs to address each of the numbered items and lettered sub-points. Please be specific in relating your responses to your chosen problem or goal (e.g., preventing violence or promoting physical activity) and the context of your community or situation. NOTE: This is a simulation in which you may make up context-specific information (e.g., the level of the problem) needed to address the questions in the Pathway.

## I. UNDERSTANDING THE COMMUNITY AND THE PROBLEM/GOAL

A. Assessing Community Needs and Resources (Curriculum Module 2) *Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to <a href="http://ctb.ku.edu/en/dothework/tools">http://ctb.ku.edu/en/dothework/tools</a> tk content page 77.htm.

1. Describe what matters to people in the community, including a description of: Issues that people in the community care about (e.g., safety, education, housing, health) How important these issues are to the community (e.g., perceived importance, consequences for the community)

Methods the group will (did) use to listen to the community and gather information (e.g., listening sessions, public forums, interviews, concerns surveys, focus groups)
Who else cares about the issue (the stakeholders), and what do they care about?

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Your Response:				

# 2. (For each candidate problem/goal) Describe the evidence indicating whether the problem/goal should be a priority issue, including:

The community-level indicators (e.g., rate of infant deaths or vehicle crashes) related to the issue How frequently the problem (or related behavior) occurs (e.g., number of youth reporting alcohol use in the past 30 days)

How many people are affected by the problem and the severity of its effects How feasible it is to address the issue

Possible impact and/or consequences of addressing the problem/goal

<u> </u>	 	 <u> </u>
Your Response:		

3. Describe the barriers and resources for addressing the identified issue(s), including:
Barriers or resistance to solving the problem or achieving the goal (e.g., denial or discounting of
the problem) and how they can be minimized (e.g., reframing the issue)
What resources and assets are available and how the group can tap into those resources to
address the issue
Community context or situation that might make it easier or more difficult to address this issue
<u>Your Response</u> :
4. (Based on the assessment) Select and state the priority issue (or issues) to be
addressed by the group.
<u>Your Response</u> :
D. C. A. M. 1.1. T. C.
Return to Module List
B. Analyzing Problems and Goals (Curriculum Module 3)
<i>Instructions</i> : Using the spaces below, please respond to the selected tasks for this competency.
Your response should address each numbered and lettered item in the form of short paragraphs.
Be specific about how they apply to your situation. For a complete list of tasks and examples
from the Community Tool Box (CTB), go to
http://ctb.ku.edu/en/dothework/tools_tk_content_page_153.htm
1. (Based on the assessment and literature) Justify the choice of the priority problem/goa
to be addressed, including:
How often does the problem occur (is the goal attained)?
How many people are affected?
For what amount of time are they affected?
How severe (significant) are the effects?
How important is the problem or goal perceived to be by others?
How effective are efforts to address it likely to be?
Are there any likely negative impacts of addressing the problem or goal?
Your Response:

## **2. Frame the problem or goal to be addressed.** State as:

Lack of/too few of a POSITIVE condition (e.g., more youth should graduate from high school; all people should be safe in their neighborhoods) or

Presence of/too much of a NEGATIVE condition (e.g., too many children drop out of school; there is too much violence) or

Both (if different stakeholders seem to respond to different framing).
Your Response:
3. Identify the key behaviors, actors, and groups related to the problem or goal. State:
What behaviors of whom contribute to the problem or goal? Include:
Who is doing what that contributes to the problem or goal?
Whose inaction (of what type) contributes to the problem?
Who is affected by the problem or goal? Include:
What types of people are affected? (e.g., children, low-income families)
How many people are affected?
In what ways are they affected?
<u>Your Response</u> :
4. Analyze "root causes" to identify the environmental conditions and related behaviors
that might contribute to the problem or goal.
For the identified issue or problem, ask "But, why?" questions (e.g., "Too many kids are failing
in school. But, why? Because they can't read. But, why?"). For each answer given, repeat the
"But, why?" question to identify potential causes.
Record the answers to "But, why?" questions to identify potential conditions and related
behaviors (of whom) that need to change.
Your Response:
5. (Based on the analysis and literature) <b>Identify personal factors that may contribute to the</b>
problem or goal. Indicate how each of these types of personal factors contributes to the problem
or goal within the community:
a. Knowledge and skill (e.g., knowledge, beliefs, skills, education levels)
b. Experience and history (e.g., early experience, exposure to stressors, cultural norms and
practices, social status)
c. Biology and genetics (e.g., type and degree of existing health, cognitive, mental, or
physical disability; chronic illness; gender and age; genetic predisposition)
Your Response:
6. (Based on the analysis and literature) <b>Identify environmental factors that may contribute</b>

6. (Based on the analysis and literature) **Identify environmental factors that may contribute** to the problem/goal. Indicate how each of these types of environmental factors contributes to the problem or goal within your community:

- a. Support and services (e.g., availability and continuity of social support and ties; availability of appropriate services; availability of resources; exclusion of some groups)
- b. Access, barriers, exposures and opportunities (e.g., physical access and barriers; communication barriers; exposures to toxic environment; opportunities or competing requirements for participation)
- c. Consequences of efforts (e.g., social approval and disapproval; incentives and disincentives; time costs and delays for desired behaviors and outcomes)
- d. Policies and living conditions (e.g., policies; financial barriers and resources; housing and living conditions; concentrated poverty; disparities in income or social status for some groups)

nving conditions,	concentrated povert	y, disparities in in	come or social sta	tus for some groups,	<u>,                                     </u>
Your Response:					

# 7. Identify targets and agents of change for addressing the community problem or goal. Indicate the:

Targets of change or those prioritized groups the effort is trying to benefit, reach or change. Include:

Those who experience the problem or are at risk

Those who contribute to the problem or goal through their action or inaction

Agents of change or those who can influence the behaviors and conditions that relate to the problem or goal. Include:

Those who can influence personal or environmental factors

Those who experience the problem or are at risk

	1		
Your Response:			

## Return to Module List

## II. PLANNING AND INTERVENTION

A. Developing Strategic and Action Plans (Curriculum Module 5)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to <a href="http://ctb.ku.edu/en/dothework/tools-tk-5.htm">http://ctb.ku.edu/en/dothework/tools-tk-5.htm</a>

1. Identify those who would be invited to a planning group for the community effort. Include:

Individuals and organizations from the community affected by the problem or goal and others that are in a position to address it

Identify all stakeholders (those who care about the group's success) to be invited

	\	U 1	,
Your Response:			

- **2. Describe the vision for the community or initiative** (their dreams for how things should be).
- a. Develop (or refine) a statement of the group's vision (e.g., in a workshop or group dialogue). To do so capture answers to questions such as:

What is your dream for the community or initiative (e.g., safe neighborhoods)

What success would look like (e.g., healthy youth)

How things ought to be (e.g., caring communities)

What people and conditions would look like if things were consistent with that picture (e.g., health for all)

b. Choose one or several vision statements with particular power to communicate, and comment on whether they are: 1) concise, 2) positive, 3) acceptable, and 4) a clear expression of why the group has come together.

why the group has come together.		
Your Response:		

- **3. State the mission** (the what and why).
- a. Develop (or refine) a mission statement that includes what is to be done and why it is to be done (e.g., "Preventing substance abuse among youth through education and community partnerships"). To do so:

Describe the essential "what" of the organization or initiative by reviewing its core functions and current programs and activities (e.g., training, advocacy, support, partnerships)

Explain the essential "why" of the organization or initiative by reviewing the vision statements (e.g., safe neighborhoods, healthy children)

Frame the mission statement as a single sentence that captures the common purpose (essential what and why) e.g., "Promoting healthy families (the why) through parent training and community support (the what)."

b. Review the mission statement and comment on whether it is: 1) clear regarding what is to be done and why, 2) concise (often one sentence), 3) outcome oriented, 4) robust - it leaves open a variety of possible means, and 5) inclusive - reflects the voices of all people who are involved.

reflects the voices of all people who are involved.

- **4. State the objectives** (how much of what the group hopes to accomplish by when).
- a. To develop (or refine) objectives, clearly describe:

Behavioral objectives: the changes in behaviors the group would see if the efforts were successful (What would people be saying and doing differently?) (e.g., For preventing adolescent pregnancy- "By 2012, to increase by 40% the reported level of sexual abstinence and use of contraceptives for those who are sexually active among 12-15 year olds")

Population-level objectives: the changes in community-level indicators the group would see if the objectives were met (How would changes in individuals' behaviors add up to outcomes for all those in the community?) (e.g., For adolescent pregnancy-"By 2015, the estimated pregnancy rate among 12-15 year olds will be reduced by 30%").

b. Review the objectives and comment on whether they are: (SMART+C): 1) Specific, 2) Measurable (at least potentially), 3) Achievable, 4) Relevant (to the mission), 5) Timed (date for attainment), and 6) Challenging (requiring extraordinary effort).

<i>Your</i>	Response:	
	-	

- 5. **Identify the strategies** (how things will be accomplished).
- a. To develop (or refine) strategies, clearly describe <u>how</u> the effort will bring about the mission and objectives (e.g., change policies). Indicate how you will use common types of change strategies including:
- 1. Providing information and enhancing skills (e.g., conducting a social marketing campaign to educate people about the problem or goal and how to address it)
- 2. Modifying access, barriers, exposures, and opportunities (e.g., increasing availability of affordable childcare for those entering the work force)
- 3. Changing the consequences (e.g., using tax incentives to encourage housing developers to create green spaces and mixed income development)
- 4. Enhancing services and supports (e.g., increasing the number of public health centers that provide dental care)
- 5. Modifying policies and broader systems (e.g., changing business policies so that all employees can get time off to care for their sick children)
- b. Review the strategies and comment on their appropriateness to the situation and sufficiency in addressing the mission and objectives.

Your Response:			

# 6. Develop (or refine) the action plan by stating the specific community/system changes to be sought/implemented that will result in the accomplishment of your goals and objectives.

- a. For each strategy, identify the specific community/system changes (e.g., new or modified programs, policies, and practices) to be sought.
- b. After compiling a list of potential changes, review each candidate community or system change and rate it on two dimensions:

Importance to the mission (1 = not at all, 5 = very); and Feasibility (1 = not at all, 5 = very).

c. Use the ratings of importance and feasibility to refine the list of community/system changes to be sought (e.g., those with higher importance and feasibility ratings might be given higher priority)

priority)		
Your Response:		

- 7. Identify action steps for one key community/system change in the action plan (who is going to do what by when). Describe:
- a. What specific change (e.g., in program or policy) or aspect of the intervention will occur?
- b. Who will carry it out?
- c. When the intervention will be implemented or how long it will be maintained?
- d. Resources (money and staff) needed/ available?
- e. Communication who should know what about this?

Your Response:			

**8.** Evaluate critically the appropriateness of the action plan (i.e., the activities or community/system changes to be implemented). Use the criteria that follow:

Completeness - Are all the intended activities or community/system changes included in the plan? Are a wide variety of strategies and sectors utilized?

Clarity - Is it apparent what will be done, and who will do what by when, to bring about change? Sufficiency - If all that is proposed were accomplished, would it meet the group's mission and objectives? If not, what additional changes need to be planned and implemented?

Resources (money and staff) needed/ available?

Currency - Does the action plan reflect the current work and situation?

Flexibility - As the plan unfolds, is it flexible enough to respond to new opportunities, barriers, and changes in the community? Can it be modified as objectives are accomplished or goals adjusted?

Your Response:			

- **9. Indicate how you will use the strategic and action plans.** Comment on the following potential uses:
- a. *Communication*: Indicate who should know about the group's strategic plan and how the plan will be communicated.
- b. *Identifying opportunities*: Indicate how specific criteria will be used to select among emerging opportunities for the group, including:

Consistency with the group's vision, mission, and objectives

Fit with the identified strategies and action plan

- c. *Identifying partners*: Indicate potential partners or collaborators who can help the group achieve its vision and mission.
- d. *Assuring accountability*: Indicate how the group will provide accountability in implementing the strategic plan, including by:

Documenting or tracking the implementation of the strategic plan

Providing information to the group about progress in implementing the strategic plan

Integrating the review	ew of progress w	ith the action pl	an into routine	operations o	r functions	of the
group (e.g., monthly	y meetings, annu	al board retreat,	staff orientation	on)		

Using the strategic plan to celebrate accomplishments and make adjustments for doing the work

Your	Respo	nse:

## Return to Module List

- B. Developing a Framework or Model of Change (Curriculum Module 4) *Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: http://ctb.ku.edu/en/dothework/tools tk 4.htm
- 1. Identify ALL components to include in the logic model or model of change. Include: Purpose or mission What the group is going to do and why? [See the mission statement] Context and conditions under which the problem or goal exists and which may affect the outcome (e.g., history of the effort, broad cultural and environmental factors, political situation, economic conditions). [See personal and environmental factors]

Inputs: Resources and barriers – include both resources and supports available and constraints or barriers to meeting the initiative's objectives. [See the resources and barriers]

Activities or interventions - what the initiative or program does to bring about change and improvement (e.g., enhancing support, modifying access). [See the strategies]

Outputs - direct results or products of the group's activities (e.g., number of people trained or activities conducted).

Effects - more broadly measured outcomes or results (may include immediate, intermediate and longer-term effects). [See the objectives]

2	/ L	
Your Response:		

2. Using the components, draft a picture of the framework or model of change. Include: An expected time sequence (what occurs before what) to arrange the components and elements of the framework or model.

Arrows or other methods to communicate directions of influence and sequences of events. Some arrows may point in both directions to show an interaction or mutual influence.

arrows may point in both directions to show an interaction of mutual influence.	
Your Response:	

3. Indicate how you will use the framework or logic model. Comment on how you will use it in the following potential ways:

Orienting those doing and supporting the work - use to explain how the elements of the initiative or program work together, where contributors fit in, and what they need to be able to do to make it work

Planning - use to clarify your initiative or program's strategies, identify targets and outcomes, prepare a grant proposal, identify necessary partnerships, and estimate timelines and needed resources for the effort

Implementation - use to determine what elements you have and don't have in your initiative or program, develop a management plan, and make mid-course adjustments

Communication and advocacy - use to justify to others why the effort will work and to explain how investments will be used

Evaluation - use to document accomplishments, identify differences between the ideal program and the currently operating one, determine which indicators will be used to measure success and frame questions about attribution (of cause and effect) and contribution of the program/initiative to the mission

to the impoint			
Your Response:			

## Return to Module List

C. Developing an Intervention (Curriculum Module 7)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools-tk-7.htm">http://ctb.ku.edu/en/dothework/tools-tk-7.htm</a>

1. Identify the community problem/goal to be addressed and what needs to be done. Include:

Statement of the community problem/goal to be addressed Specific behaviors of whom that need to change Improvements in community-level outcomes that should result

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2. Describe the prioritized groups to benefit and those implementing the intervention. [See targets of change and agents of change] Include:

Targets of change or prioritized groups for whom behaviors or outcomes should change Agents of change or those implementing the intervention

Your Re	esponse:			
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3. Identify and assess "best practices" or "evidence-based interventions" that could help address the problem or goal in your situation. [For a list of websites in the Community Tool Box that feature "best practices" or evidence-based approaches, go to <a href="http://ctb.ku.edu/en/promisingapproach/Databases">http://ctb.ku.edu/en/promisingapproach/Databases</a> Best Practices.htm ]. Indicate: Potential or promising "best practices" for your situation (consider various available databases and lists of "best" or evidence-based practices)

How strong is the evidence that each potential "best practice" caused the observed improvement? (Rather than other associated conditions or potential influences)
Whether the "best practice" could achieve the desired results in your community
Whether the conditions (e.g., time, money, people, technical assistance) that affect success for
the "best practice" are present
(Based on the assessment) The "best practice" or evidence-based approach to be tried in your
situation (Note: If no "best practices" are known or appropriate to your situation, follow the steps
below to design or adapt another intervention.)
Your Response:
Town Response.
4. (Based on the assessment and literature) Specify the core components and elements of the
intervention. Be specific about elements to be included for each of these five intervention
components.
Providing Information and Enhancing Skills (e.g., conduct a public information campaign to
educate people about problem or goal and how to address it)
Modifying Access, Barriers, Exposures, and Opportunities (e.g., increase availability of
affordable childcare for those entering work force; reduce exposures to stressors)
Enhancing Services and Supports (e.g., increase the number of centers that provide health care)
Changing the Consequences (e.g., provide incentives to develop housing in low-income areas)
Modifying Policies and Broader Systems (e.g., change business or public policies to address the
goal)
Your Response:
5. Identify the mode of delivery through which each component and element of the
intervention will be delivered in the community (e.g., workshops for skill training) [See the
logic model
Your Response:
6. Indicate how you will adapt the intervention or "best practice" to fit the needs and
context of your community (e.g., differences in resources, cultural values, competence,
language).
Your Response:

**7.** Develop an action plan for one key component or activity of the intervention. Include:

What will people do to implement this aspect of the intervention (e.g.	, training workshop)?
Who will carry it out?	

By when (for how long) the intervention will be implemented or maintained?

Resources (money and staff) needed/ available?

Who should know what about this?

Return to Module List

## III. DEVELOPING A COLLABORATIVE TEAM

A. Creating and Maintaining Coalitions and Partnerships (Curriculum Module 1) *Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools-tk-1.htm">http://ctb.ku.edu/en/dothework/tools-tk-1.htm</a>

## 1. Keeping your broad goals in mind, assemble the coalition's (group's) membership.

a. Identify those who need to be involved in order to accomplish your anticipated goals. Include: Those who can be effective in bringing about change and how they can be involved [See agents of change]

Those already involved in the formation of the collaborative partnership and what roles they can play

b. Indicate how you would connect with potential partners and approach them regarding membership

Your Response:		

# 2. Describe potential barriers and assets for collaboration and how they will be addressed or used. Include:

- a. Relevant barriers to collaboration (and how they will be addressed) including: Competition or turf issues, bad history of working together, dominance by certain members, poor links to the community, funding (too much or too little), and lack of leadership
- b. Relevant assets for collaboration (and how they will be used) including: Existing relationships and networks, financial support (in-kind), and history of sharing risks, resources, responsibilities and rewards among organizations.

<u> </u>	
Your Response:	

3. Describe how the group will function as an organization and how responsibilities will be shared among partner organizations. Include:

How working together will benefit each partner/organization and advance its own interests and constituents - What will each gain?

Roles and responsibilities of each participant, indicating mechanisms for assuring communication and joint accountability

Your Response:		

4. Describe the structure the collaborative partnership will use to do its work. Including

how will some or all of the following be part of the structure:

Steering Committee (i.e., group of people who get things started)

Coordinating Council (i.e., Executive Committee)

Advisory Committee (i.e., ensure necessary guidance, support and resources)

Board of Directors (i.e., provide overall support, advice, and resources)

Task Forces (i.e., those who work together around broad objectives, such as increasing child immunization or reducing toxic waste)

Action Committees (i.e., those who take action to bring about changes sought by the organization)

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Your Response:		

**5. Describe how the group will maintain momentum and foster renewal**. Indicate how the group will assure the **6 R's** for maintaining engagement of all participants:

Recognition

Respect

Roles

Relationships

Rewards

Results

<b>Your</b>	Res	ponse.

## Return to Module List

B. Building Leadership (Curriculum Module 6)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: http://ctb.ku.edu/en/dothework/tools tk 6.htm

1. Assess your group's competence in core tasks of leadership and plan for improvement. Consider abilities of the group's leaders and members for each of the eight core tasks below, and note how your group's competence will be enhanced in: Envisioning goals

Affirming values
Motivating
Managing
Achieving workable unity
Explaining
Serving as a symbol
Representing the group
Your Response:
2 Envision the lead aughin of the group Indicate.
2. Envision the leadership of the group. Indicate:  How many leaders are needed (or wented) on the team to fulfill key leadership tasks
How many leaders are needed (or wanted) on the team to fulfill key leadership tasks Specify what skills are needed for this work
Indicate who (what types of people) need to be included to reflect the community and its
interests
Your Response:
Tour Response.
3. Select methods for developing leadership. Indicate how you (your group) will:
Teach as you lead through modeling
Arrange workshops and training
Provide access to more experienced mentors or coaches
Form learning networks and leadership support groups
Use retreats to reflect on the work and to restore members for continuing the work
Your Response:
4. Recruit new people to lead. Indicate how you (your group) will:
Attract new members to serve as leaders of the group
Determine together how they will be involved
Enhance diversity or abilities, experience, relationships, and cultural competence in the team
Prepare new generations of leadership for this work
<u>Your Response</u> :
5. Indicate how you will build a great group with strong leadership. Communicate how
5. Indicate how you will build a great group with strong leadership. Communicate how you will:

Find and attract talented people

Create a situation in which people can apply their talents

Get great projects in which people can work together Assure that the right people are in the right jobs Protect members from distractions and demands of the broader environment Build bridges to those people and resources that can help

Prompt reflection on the meaning of the work

Maintain a climate of optimism in the group

## Return to Module List

C. Enhancing Cultural Competence (Curriculum Module 9)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools\_tk\_9.htm">http://ctb.ku.edu/en/dothework/tools\_tk\_9.htm</a> Conduct a Cultural Audit

1. Describe the cultural context of your organization and community by identifying the different cultures or shared experiences represented in the organization, group, and community. These may include aspects related to:

Direct experience with the problem/ goal addressed by the group

Marginalized or socially excluded groups

Nationality

Ethnicity

Native language

Race

Gender

Religion or spiritual beliefs

Occupational status

Educational status

Political status

Economic status or social class

Physical attributes

Relationship status

Age group

Geographical/regional residency

Health status

Other aspects (be specific)

Your Response:			

2. Describe how people of different cultures interact within your organization, group, or				
community (e.g., not at all, with respect). Include a description of which cultural groups are				
well (poorly) represented in your organization currently.				
Your Response:				
2. Access the appropriate of cultural competence within your expeniention or				
3. Assess the current practice of cultural competence within your organization or community. Comment specifically on the current practice or ability to:				
Be involved and comfortable with people from different cultures and backgrounds				
1 1				
Show genuine respect for others who are different				
Work effectively with people from different cultures and backgrounds				
Link or connect people and groups from different cultures and backgrounds				
Your Response:				
Build a Culturally Competent Organization				
1. Based on the cultural audit or assessment, identify goals for enhancing the cultural				
, , ,				
<b>competence of your organization.</b> For each goal (see potential goals below) indicate what				
"success" would look like if the goal were attained:				
a. Increase participation and involvement of those from different cultures and backgrounds				
b. Enhance the respect people show for others who are different				
c. Increase members' engagement and effectiveness in working with people from different				
cultures and backgrounds				
d. Increase links among people and groups from different cultures and backgrounds				
e. Develop and enforce policies that assure everyone's human rights and safety, regardless				
of culture or background				
Your Response:				
2. For one stated goal for cultural competence in the organization (e.g., increase				
participation), identify specific activities and develop or add to the action plan (i.e., what				
will be done by whom by when).				
Your Response:				
Return to Module List				

IV. ADVOCATING AND PROMOTING CHANGE

A. Advocating for Change (Curriculum Module 10)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools\_tk\_10.htm">http://ctb.ku.edu/en/dothework/tools\_tk\_10.htm</a>

- 1. For the priority issue, present the essential facts. Include:
- a. Who is affected by the issue?
- b. What factors contribute to the problem or goal?
- c. What are the consequences (e.g., social, economic) of the issue?
- d. What are the barriers (political, cultural, etc.) to addressing the issue?
- e. What are the resources available for addressing the issue?
- f. What is the history of the issue in this community?

i. What is the instery of the issue in this community.
Your Response:

- 2. State the broad goals and specific objectives for the advocacy effort. Include:
- a. Broad advocacy goals (e.g., meet otherwise unmet needs; reverse or correct a situation; prevent the loss of a valued asset; change public opinion)?
- b. Specific objectives (how much of what by when) (e.g., "By 2010, increase by 50% the public investment in early childhood education.")?

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Your Response:			

- **3. State the advocacy tactics to be used**. Include specific ways that you will use these four advocacy approaches:
- a. Conduct <u>advocacy research</u> (i.e., conduct studies, gather data on public opinion, study the opposition)
- b. Provide <u>education and encouragement</u> (i.e., offer personal thanks, public support, reframe the debate)
- c. Conduct a <u>direct action campaign</u> (e.g., write letters, lobby decision makers, conduct a public hearing, organize a boycott, electronic advocacy)
- d. Use <u>media advocacy</u> (i.e., making friends with the media, creating newsworthy stories)

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Your Response:				

## 4. Identify resources and assets to be used in the advocacy effort. Include:

The number and kind of people who are available and committed

The financial resources available

The communications technologies, facilities and other material resources available

The information and ideas that could be helpful

Other assets that can be used to support the effort

Your Response:
5. Identify and engage potential allies. Indicate:
Likely allies and what they could bring to the effort
How allies might be engaged (e.g., what roles, responsibilities, rewards)
Your Response:
Tour response.
6. Identify and counteract opposition. Indicate:
Likely opponents and how they might resist or oppose the effort
Likely purpose of the opposition (e.g., to block intended change)
Tactics that may be used by the opposition, including The 10 D's (i.e., deflect, delay, deny,
discount, deceive, divide, dulcify or appease, discredit, destroy, and deal)
How the opposition can (will) be countered
<u>Your Response</u> :
7. Describe the evaluation of the advocacy effort. State: The objectives of the advocacy effort How intended outcomes are measured
How the information will be used to understand, assess the merit, and improve the effort
Your Response:
8. Develop an action plan for implementation of the advocacy effort. For one key aspect (e.g., implementing a specific tactic). Indicate: What will be done? By whom? By when?
Using what resources?
Communication, who should know what?
Your Response:
Tour Response.
Return to Module List
B. Implementing a Social Marketing Effort (Curriculum Module 13)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs.

Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools-tk-13.htm">http://ctb.ku.edu/en/dothework/tools-tk-13.htm</a>

# 1. Collect information from those who would benefit from and contribute to the social marketing campaign:

a. Indicate how you will gather information, including:

Listening sessions and public forums

Interviews with members of prioritized groups (e.g., asking youth why they smoke)

Focus groups, interviews, and/or surveys with prioritized groups and their subgroups

b. Indicate what you will ask about (listen for), including:

Knowledge of the issue including how often the problem (or desired) behavior occurs Importance of the goal/desired behavior for the audience (e.g., Why is that important?)

Expected benefits of adopting the changed behavior

Expected benefits and costs of adopting or continuing the behavior

Your Response:		

# 2. State the goals and behavioral objectives of the campaign. [See the mission and objectives]

a. Outline the basic principles of the social marketing campaign. Include:

Product: What are the behaviors/outcomes (e.g., poor eating/obesity) that you are trying to change in and among whom

Price: How much time, effort, and other consequences (e.g., money, social approval, lost opportunities) will it cost a person to change their behavior/outcome?

Place: Where should the behaviors occur (not occur)? What are the barriers (opportunities) for the behavior to occur?

Promotion: What communications will occur, from what sources to whom, and through what channels of influence?

b. Describe the specific behavioral/outcome objectives the campaign will seek how much change in what behaviors/outcomes among whom by when (e.g., By July 2010, the percentage of adults who engage in regular physical activity will increase by 30%):

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Your Resp	onse:				

## 3. Define the audience or specific prioritized groups to be reached. [See targets of change]

- a. Identify the specific prioritized groups whose behavior matters if the problem or goal is to be addressed (e.g., youth, parents/guardians, neighbors, elected officials)
- b. Indicate subgroups that may have a higher risk for experiencing the problem. Consider those at particular risk associated with:

Past or current behaviors (e.g., history of tobacco use)

Personal factors (e.g., age, gender, race or ethnicity, family history, income)

Environmental factors (e.g., stress, social support, access and barriers, and exposure to harmful agents)

Geographic area (e.g., where people live)

- c. Indicate the environments, situations, or settings in which the targeted behavior occurs (or should or should not occur) (e.g., schools, homes, parks or other public places).
- d. For each prioritized group and subgroup, indicate their readiness for change including: Knowledge of the problem or goal

Belief in the importance of the goal

Desire for change

Belief in ability to change

Action

Ability to maintain change

e. Describe how you will learn more about the prioritized groups' current behavior, the situations in which it occurs, and readiness to change including by:

Direct observation of behaviors of interest (e.g., for the goal of reducing youth smoking, count percentage of teens smoking cigarettes as they leave schools)

Participant observation in the environments in which the behavior occurs (or should occur) (e.g., hanging out and observing in parks and recreation centers where teens spend time after school) Behavioral surveys (e.g., use school surveys to ask youth to report how often they smoke) Listening sessions and public forums (e.g., among those living in particular neighborhoods) Informal interviews with members of prioritized groups (e.g., asking children what they most appreciate about those who care for them)

Focus groups of members of subgroups (e.g., asking working adults what it would take for them to get more physical activity)

Your Response:		

## 4. Engage potential partners and change agents in the campaign. [See agents of change]

- a. Identify those agents of change who may be particularly helpful in reaching different prioritized groups (and indicate how they will be engaged) including:
- 1. Connectors: How will the group identify and involve those who can spread the message of the campaign through their networks?
- 2. Teachers: How will the group identify and involve those who can and will provide needed knowledge to those implementing the campaign's components?
- 3. Persuaders: How will the group identify and involve those who can motivate others to adopt the behaviors sought by the campaign?
- b. Identify those in a position to change conditions under which the targeted behaviors occur, and indicate how they will be engaged in the campaign (e.g., Who can help modify access, barriers, exposures, and opportunities?)

	F F )		
Your Response:			
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- **5. Identify core components or strategies of the campaign.** Indicate how the campaign will:
- a. Communicate memorable messages about the desired behavior including: Credible content and source (e.g., testimonial by someone like me, celebrity, or person in authority)

Images that convey the appropriate tone (e.g., serious, humorous, friendly, frightening)
Memorable sayings (e.g., "just do it"; "make kids count") and narrative stories (e.g., about why this was important to particular people and communities)

Specific prompts about the behaviors to be changed (i.e., be clear about what people should do and when)

How this fits with the circumstances of people's lives (i.e., how it is compatible with people's available time, the places where they live and work, and the situations they experience) How this minimizes time and effort (i.e., how the time and cost is acceptable)

How doing it results in positive consequences (e.g., increased social approval from peers)

b. Make the desired behaviors more rewarding or attractive including by: Increasing available positive reinforcement for the desired behavior (e.g., social approval from friends and family)

Decreasing the prevailing punishment (e.g., media campaign to suggest it is "cool" or socially acceptable to do well in school)

- c. Make the desired behaviors easier or of lower cost in time, effort, and money (i.e., modifying access, removing barriers, and increasing opportunities for the behavior)
- d. Improve people's abilities to adopt the behavior change (e.g. provide more and better services and support)
- e. Decrease the attractiveness of competing behaviors (e.g., reducing available rewards for undesirable behaviors)

Your Response:			
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# 6. Select and tailor campaign components based on their importance, feasibility, and fit with different prioritized groups/subgroups.

- a. Identify the particular sources of information that may be more influential with distinct prioritized groups and subgroups (i.e., people trust messages that come from others who are similar in age, ethnicity, etc.).
- b. Identify the particular channels of influence to be used to reach distinct prioritized groups and subgroups (e.g., African Americans and Hispanics might be reached through church services and bulletins). Indicate all the channels that might apply for person-to-person, small group or media communications including:

Informal networks and naturally occurring groups (e.g., those meeting where people work, play, and pray)

Public and nonprofit organizations (e.g., , libraries; health and human service agencies) Professional associations and groups (e.g., teachers' associations, labor unions)

Businesses (e.g., theaters, convenience stores, beauty salons, bars)

Point-of-purchase/decision materials (e.g., signs, displays, or "take one" handouts in stores or restaurants)

Community and cultural events (e.g., soccer games, festivals)

Direct and electronic mail (e.g., mailings, E-mail)

Print materials (e.g., brochures, fact sheets, newsletters, posters, flyers)

Print media (e.g., newspapers, daily and weekly)

Outdoor media (e.g., billboards, transit ads)

Broadcast and electronic media (e.g., television, radio, Internet)

Telephone directories (e.g., Yellow pages)

Other (be specific)

c. Identify how other selected strategies/components of a social marketing campaign will be tailored for use with different prioritized groups/subgroups (e.g., To increase adult engagement in caring relationships with children, the group might use radio and television ads, flextime policies in large businesses, and information distributed through church bulletins, etc.).

	 2	· · · · · · · · · · · · · · · · · · ·	
Your Response:			

# 7. **Implement the social marketing campaign.** For one specific aspect of the campaign, outline an action plan:

What actions will occur?

Who will carry it out?

When this will occur?

Resources (money and staff) needed/ available?

Communication - Who should know what about this?

Your Response:			

## **8.** Evaluate the effects of the social marketing campaign. Indicate how you will:

Track implementation of campaign components and activities

Assess knowledge of (and exposure to) the campaign

Assess ongoing changes in specific behavioral objectives

Assess ongoing changes in specific population-level outcomes

Examine the contribution of campaign components to possible improvements in behavior and outcomes at the community level

Consider the ethical implications of the campaign

Your Response:		

Return to Module List

## V. EVALUATING AND SUSTAINING THE EFFORT

A. Evaluating the Initiative (Curriculum Module 12)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools\_tk">http://ctb.ku.edu/en/dothework/tools\_tk</a> 12.htm

- 1. Identify key stakeholders and what they care about (e.g., people or organizations that have something to gain or lose from the initiative and its evaluation). Include:
- a. Those involved in operating the program or initiative (e.g., staff, volunteers, community members, sponsors, and collaborators) [See agents of change]
- b. Those prioritized groups served or affected by the effort (e.g., those experiencing the problem, public officials) [See targets of change]
- c. Primary intended users of the evaluation (e.g., program or initiative staff, community members, outside researchers, funders) [See stakeholders]

members,	nembers, outside researchers, funders) [see stakeholders]						
Your Res	sponse:						

**2. Describe the program or initiative's framework or logic model** (e.g., what the program or effort is trying to accomplish and how it is doing so). [See Logic Model] Include information about the:

Purpose or Mission (e.g., the problem or goal to which the program, effort, or initiative is addressed)

Context or Conditions (e.g., the situation in which the effort will take place; factors that may affect outcomes)

Inputs: Resources and Barriers (e.g., resources may include time, talent, equipment, information, money, etc.). Barriers may include history of conflict, environmental factors, economic conditions, etc.

Activities or Interventions (i.e., what the initiative will do to effect change and improvement) (e.g., providing information and enhancing skills; enhancing services and support; modifying access, barriers and opportunities; changing the consequences; modifying policies and broader systems)

Outputs (i.e., direct evidence of having performed the activities) (e.g., number of services provided)

**Intended Effects or Outcomes** 

Shorter-term (e.g., increased knowledge or skill)

Intermediate (e.g., changes in community programs, policies, or practices)

Longer-term (e.g., change in behavior or population-level outcomes)

Your Response:			

# 3. Focus the evaluation design - what the evaluation aims to accomplish, how it will do so, and how the findings will be used. Include a description of:

a. Purpose or uses: What the evaluation aims to accomplish. Purposes may include:

Gain understanding about what works

Improve how things get done

Determine the effects of the program with individuals who participate

Determine the effects of the program or initiative on the community

- b. Evaluation questions: Indicate what questions are important to stakeholders, including those related to:
- 1. Process Measures

A. Planning and Implementation Issues: How well was the initiative planned and implemented? Did those most affected contribute to the planning, implementation and evaluation of the effort? How satisfied are participants with the program?

- 2. Outcome Measures
- A. Attainment of Objectives (e.g., How well has the program or initiative met its stated objectives?)
- B. Impact on Participants (e.g., How much and what kind of a difference has the program or initiative made for its prioritized groups?)
- C. Impact on Community (e.g., How much and what kind of a difference has the program or initiative made on the community? Were there any unintended consequences, either positive or negative?)
- c. Methods: What type of measurement and study design should be used to evaluate the effects of the program or initiative? Typical designs include case studies and more controlled experiments. By what methods will data be gathered to help answer the evaluation questions? Note appropriate methods to be used including:

Surveys about satisfaction and importance of the initiative

Goal attainment reports

Behavioral surveys

Interviews with key participants

Archival records

Observations of behavior and environmental conditions

Self-reporting, logs, or diaries

Documentation system and analysis of contribution of the initiative

Community-level indicators of impact (e.g., rates of HIV)

Case studies and experiments

Your Response:			

# 4. Gather credible evidence - decide what evidence is, and what features affect credibility of the evaluation, including:

a. Indicators of success - specify criteria used to judge the success of the program or initiative. Translate into measures or indicators of success, including:

Program outputs

Participation rates

Levels of satisfaction

Changes in behavior

Community or system changes (i.e., new programs, policies, and practices)

Improvements in community-level indicators

- b. Sources of evidence (e.g., interviews, surveys, observation, review of records). Indicate how evidence of your success will be gathered.
- c. Quality estimate the appropriateness and integrity of information gathered, including its accuracy (reliability) and sensitivity (validity). Indicate how quality of measures will be assured.
- d. Quantity estimate what amount of data (or time) is required to evaluate effectiveness.
- e. Logistics Indicate who will gather the data, by when, from what sources, and what precautions and permissions will be needed.

r
Your Response:

## 5. Outline and implement an evaluation plan. Indicate how you will:

- a. Involve all key stakeholders (e.g., members of prioritized groups, program implementers, grantmakers) in identifying indicators of success, documenting evidence of success, and sense making about the effects of the overall initiative and how it can be improved.
- b. Track implementation of the initiative's intervention components
- c. Assess exposure to the intervention
- d. Assess ongoing changes in specific behavioral objectives
- e. Assess ongoing changes in specific population-level outcomes
- f. Examine the contribution of intervention components (e.g., a program or policy) and possible improvements in behavior and outcomes at the level of the whole community/population
- g. Consider the ethical implications of the initiative (e.g., Do the expected benefits outweigh the potential risks?)

Your Response:			

## Return to Module List

B. Sustaining the Work or Initiative (Curriculum Module 16)

*Instructions*: Using the spaces below, please respond to the selected tasks for this competency. Your response should address each numbered and lettered item in the form of short paragraphs. Be specific about how they apply to your situation. For a complete list of tasks and examples from the Community Tool Box (CTB), go to: <a href="http://ctb.ku.edu/en/dothework/tools\_tk\_16.htm">http://ctb.ku.edu/en/dothework/tools\_tk\_16.htm</a>

1. Clarify the goals and context for sustaining the effort. To do so, indicate: What aspects of the effort need to be sustained to achieve the initiative's goals

Whether the goals for the effort are open to expansion or change

What the group has accomplished in terms of reaching its goals

Current structure and organization of the initiative

Needed resources to support permanent personnel

Current foundation or basis of funding and resources (e.g., money or other support)

Potential obstacles to sustainability

Public's awareness of the group or effort

	0 1		
Your Response:			

# 2. Create a business plan to anticipate what resources will be necessary to sustain the organization or effort.

- a. Describe the services or products (activities) to be offered, the potential market and audience, and how they will be reached.
- b. Generate an annual budget, including:
- 1. All projected expenses (e.g., salaries, office expenses, rent, utilities, phone and computer expenses, equipment, travel, etc).
- 2. All projected income based on current sources of funding and other in-kind resources.
- c. Set specific goals for financial resources to be generated for the organization or effort (e.g., how much of what kind of resources by when, e.g., "By 2015, to have an annual operating budget of \$200,000 with cash reserves equal to 25% of the budget"). What is the organization's immediate financial goal? Longer-term goals?

Your Response:		

# **3. Identify specific tactics to be used to sustain the effort.** Indicate how you will use potential tactics for financial sustainability, including:

Share positions and resources - Share staff positions, space, equipment, or other resources with organizations with similar goals.

Become a line item in an existing budget of another organization - Convince another organization to pick up part of the expenses of running the initiative (e.g., the city provides funding for a school health program).

Incorporate the initiative's activities or services into another organization with a similar mission Apply for grants - Consider time and resources that will be necessary for success, and the need for reapplication.

Tap into available personnel resources - Recruit people or positions in other organizations that can be shared at low or no cost (e.g., clerical staff, volunteers).

Solicit in-kind support - Seek goods and services the organization would otherwise have to purchase (e.g., donations of office supplies from a local business).

Develop and implement a fundraiser - Identify and offer products, services or events that will inspire others to contribute money to the organization.

Pursue third party funding - Solicit third parties not actually involved with the effort, and not directly benefiting from it, to provide resources for services (e.g., insurance companies support valued services).

Develop a fee-for-service structure - Require clients who receive services to pay for them (e.g., sliding-fee scales based on clients' ability to pay).

Acquire public funding (e.g., from legislature or city council).

Secure endowments or planned giving arrangements - Use interest from funds as annual income. Establish a donor or membership base - Donors or members help provide unrestricted funds to support the operations of the organization (e.g., dues, gifts).

support the operation	is of the organization	ii (e.g., aaes, giits).	•	
Your Response:				

- **4.** Develop a marketing plan to secure resources for the organization or effort. Indicate how you will use the "4Ps" of marketing in implementing your plan, including:
- a. Product (e.g., what your group offers, and its benefits)
- b. Price (e.g., costs, value added)
- c. Place (e.g., how you will make it easier for people to contribute)
- d. Promotion (e.g., what message will be carried to whom, by whom, through what means)

	\ U /	8	 	0	
Your Response:					

- 5. Outline a specific action plan for sustaining the organization or effort. For one key sustainability tactic (e.g., obtain grant funding), develop a specific action plan, including:
- a. What activities will be carried out
- b. Who will do it
- c. By when the activity will be completed, or for how long it will be maintained
- d. Resources that will be needed to complete it
- e. Communication Who should know what about this

Your Response:			

Return to Module List

 $\label{eq:Appendix E} \textbf{Example timeline of class during LP condition.}$ 

	Thursday, June 7
1:00 – 1:15	Lecture – Introduce Module 2 and concepts in first question of LP
1:15 – 1:35	Groups work on question number one of LP
1:35 – 1:50	Lecture on concepts related to second question of LP
1:50 – 2:10	Groups work on question number two of LP
2:10 – 2:25	Lecture on concepts related to third question of LP
2:25 – 2:45	Groups work on question number three of LP
2:45 – 2:50	Lecture on concepts related to fourth question of LP
2:50 – 3:00	Groups work on question number four of LP
3:00 – 3:30	Quiz covering Module 2

## Appendix F

## Sample IT preparation guide.

## Preparation Guide 4 – Module 13: Implementing a Social Marketing Effort

(to be completed before class)

- 1. When would you use social marketing?
- 2. List five methods of conducting market research. What is an ethnographic study?
- 3. What are the four general guidelines for listening well?
- 4. What are the different ways in which you can segment the market? What might make a subgroup have a higher risk for experiencing the issue?
- 5. What are the common barriers to communicating your message?
- 6. List example benefits of behavior change.
- 7. What are the costs of behavior change? Describe each cost.
- 8. What are the five components and elements of a social marketing campaign?
- 9. List the basic principles of communication.
- 10. List how to provide support for changing behavior and maintaining it.
- 11. List the four elements of persuasive communication. What are the principles of persuasive communication? Give a brief description of two of the principles.

# Preparation Guide 4 – Module 13: Implementing a Social Marketing Effort (to be completed in class)

You are working for an organization that is concerned with traffic safety. You and your organization would like to focus a social marketing effort focusing on increasing seatbelt use and decreasing distracted driving in teens....

- a. Is the change you are looking for a one-time change, a repeated, but finite change, a permanent change, or a situational change?
- b. What are the benefits you would expect from more teens driving safely (short and/or long term, individual and/or to others)?
- c. What do you think the answers by teens would be to the two primary questions of market research (i.e., what would make it more likely for you to do (not do) the behavior of interest wearing seatbelt and/or not driving distracted, why should you wear seatbelt/not drive distracted)? What would you do to get those answers from the teens?
- d. You will now begin to create a specific social marketing effort. How would you segment the market? Would you use undifferentiated marketing, differentiated marketing, or concentrated marketing?
- e. Create an example of a social marketing message. Be creative! It could be, but does not have to be, a 30 PSA on television or the radio, a billboard, a poster, transit ad, banner, sign, some sort of social media campaign, etc. Actually write out an outline of a script/sketch out the billboard/describe in detail the campaign/create whatever you want to create. While creating the message you may want to keep in mind questions f through h.

- f. When and where would you air/display your message/campaign? Why would you do it at those times/in those places?
- g. Which component(s) of social marketing did your message use?
- h. How does your message meet some of the principles of persuasion (e.g., it meets "make a strong opening" under delivery because...)
- i. What barriers to communicating this message do you think you would face?
- j. How does your service learning site use social marketing? If it does not, how could it?

 $\label{eq:Appendix G} \textbf{Example timeline of classes during IT condition.}$ 

	Thursday, June 21	Tuesday, June 26
1:00 – 1:30	Clarifying lecture covering previous module	Clarifying lecture covering Module 7
1:30 – 2:00	Quiz on previous module	Quiz on Module 7
2:00 – 2:10	Break	Break
2:10 – 2:15	SAFMEDS covering Module 7 terms	SAFMEDS on following module
2:15 – 3:00	Interteach session on preparation guides covering Module 7	Interteach session on following module
3:00 – 3:15	Group discussion covering content in preparation guide	Group discussion on covering content on following preparation guide
3:15 – 3:30	Fill out and turn in record of interteaching	Fill out and turn in following record of interteach

## Appendix H

## Procedural fidelity data sheet.

## **Learning Pathway**

	Da	ate
Steps		
Instructor gives lecture		
Instructor provides time to complete Learning Pathway		
Instructor provides feedback during each Learning Pathway work time		
Instructor gives quiz		
Total Correct Steps		
Percent Correct Steps		

## Interteaching

	Dat	te
Steps		
Instructor gives lecture based on previous feedback		
Instructor gives quiz		
Instructor facilitates SAFMEDS timings		
Instructor gives time for interteaching		
Instructor provides feedback during interteaching		
Instructor facilitates group discussion on interteaching guide		
Instructor collects Record of Interteaching forms		
Total Correct Steps		
Percent Correct Steps		

Notes:			

**Code:** += correct o = omission -= incorrect

## Appendix I

## Social validity questionnaire.

## End of Semester Evaluation

1.	Rate the degree	of preference between	en the learning path	way and interteachin	g.
	rongly prefer terteaching	Somewhat prefer interteaching	No preference	Somewhat prefer learning pathway	Strongly prefer learning pathway
2.	Rate the extent	of learning with inte	erteaching and the lea	arning pathway.	
	uch more with terteaching	Somewhat more with interteaching	Equally well with interteaching and the learning pathway	Somewhat more with learning pathway	Much more with learning pathway
3.	Rate the extent <b>method</b> .	to which you feel yo	ou had a voice in you	r learning during the	e learning pathway
	1	2	3 4	5	6
	Strongly disagree				Strongly Agree
4.	Rate the extent <b>method</b> .	to which you feel yo	ou had a voice in you	r learning during the	e interteaching
	1	2	3 4	5	6
	Strongly disagree				Strongly Agree
5.	How likely is it student?	that you would reco	ommend a class that t	uses the interteach m	nethod to a fellow
	1	2	3 4	5	6
	Not likely				Extremely likely

6. Which aspects of the interteaching method were the most useful?

7.	Which aspects of the interteaching method were the least useful?
8.	Which aspects of the learning pathway method were the most useful?
9.	Which aspects of the learning pathway method were the least useful?
10.	How would you compare these learning methods to other classes?
11.	Have you ever participated in an interteaching class before?
12.	What is your age?
13.	What year are you?
14.	What is your major?
15.	What is your minor?
16.	What is your gender?
17.	What is your ethnicity?
18.	Why are you taking this class?
19.	Please provide any other feedback about the course.

## Appendix J

## Item analyses.

## Module 2 Quiz

Analysis Last Run September 21, 2018 11:27 AM. Run Item Analysis again to display the latest question data

Edit Test

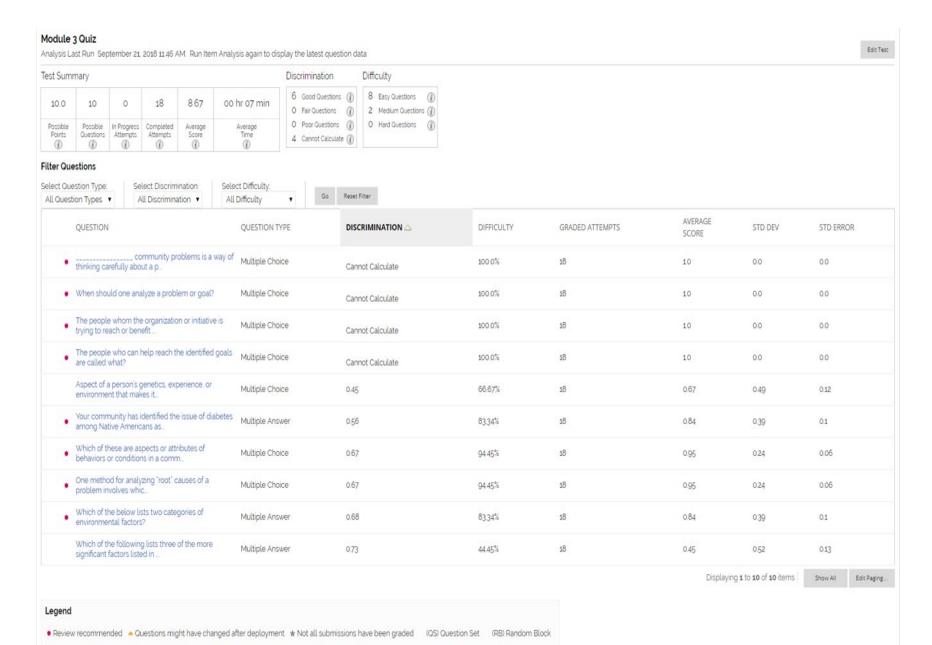
Test Sumi	mary			Discrimination	Difficulty		
10.0	10	0	15	9.07	00 hr 05 min	4 Good Questions (1) 1 Fair Questions (1)	9 Easy Questions (1) 1 Medium Questions (1)
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time	2 Poor Questions (1) 3 Cannot Calculate (1)	O Hard Questions (

## Filter Questions Select Question Type:

uestion Types ▼ All Discrimination ▼ All C	Difficulty ▼						
QUESTION	QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
A consists of information used to describe the people and	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
Oualitative information helps address questions about which of the following?	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
A refers to the gap between what a situation is and what i	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
This is a small group discussion guided by a trained leader that is used to L	Multiple Choice	0.02	93.34%	15	0.94	0.26	0.07
The acronym SWOT stands for which of the following?	Multiple Choice	0.02	93.34%	15	0.94	0.26	0.07
Quantitative information helps address questions about which of the following?	Multiple Choice	0.21	86.67%	15	0.87	0.36	01
provide information on the level of a problem or goal attain.	Multiple Choice	0.58	66.67%	15	0.67	0.49	0.13
You are conducting a community health assessment in a neighborhood to listen	Multiple Answer	0.77	86.67%	15	0.87	0.36	0.1
A refers to those people or things that can be used to impr	Multiple Choice	0.77	86.67%	15	0.87	0.36	01
Which of the following lists three types of information often included in a c	Multiple Answer	0.78	93.34%	15	0.94	0.26	0.07

#### Legend

• Review recommended - Ouestions might have changed after deployment - Not all submissions have been graded (OS) Question Set (RB) Random Block



#### Module 5 Quiz

Analysis Last Run September 21, 2018 11:52 AM. Run Item Analysis again to display the latest question data

Edit Test

# Test Summary 10.0 10 0 17 9.3 00 hr 06 min Possible Points Questions Attempts Foints Questions Attempts (i) (i) (ii) (ii)

## Discrimination Difficulty

2 Good Questions (i) 9 Easy Questions (i) 1 Fair Questions (i) 1 Medium Questions (i)

7 Cannot Calculate (1)

- O Poor Questions (i) O Hard O
- Medium Questions (2)
   Hard Questions (2)

#### Filter Questions

Select Question Type: Select Discrimination: Select Difficulty:

All Difficulty ▼ Go Reset Filter

QUESTION	QUESTION TYPE	DISCRIMINATION $\triangle$	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
A mission statement describes:	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
provide information about how much of what will be accomplishe	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
• Which of the following contain all six criteria for reviewing objectives?	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
VMOSA consists of which of the following?	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
Which of following lists three behavioral strategies that can be include	Multiple Answer	Cannot Calculate	100.0%	17	10	0.0	0.0
• Ais when th	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
A strategy that focuses only on those who may be at greater risk for the prob	Multiple Choice	Cannot Calculate	100.0%	17	10	0.0	0.0
Part of society (e.g., schools, faith organizations, neighborhoods) thro	Multiple Choice	0.13	9412%	17	0.95	0.25	0.06
A Vision statement communicates	Multiple Choice	0.51	82.36%	17	0.83	0.4	0.1
An action plan describes	Multiple Choice	0.7	52.95%	17	0.53	0.52	0.13

Displaying 1 to 10 of 10 items

Show All Edit Paging...

## Legend

## Module 4 Quiz

Analysis Last Run September 21, 2018 11:56 AM. Run Item Analysis again to display the latest question data

Edit Test

est Sumr	Discrimination					
10.0	10	0	12	9.25	00 hr 03 min	3 Good Questions (1) 1 Fair Questions (1)
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time	O Poor Questions (1) 6 Cannot Calculate (1)

## Difficulty

- 9 Easy Questions (1) Good Questions (1) 1 Medium Questions (1) Fair Questions (i)
- Poor Questions (1)
  - O Hard Questions (1)

#### Filter Questions

production of the second secon	ect Difficulty: I Difficulty   Go	Reset Filter					
QUESTION	QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
logic andlogic are two primary approaches&nbs	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
A logic model is effective in	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
Your town identified the issue of increasing household recycling as a pr	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
is the conditions under which the problem exists and that affec	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
<ul> <li>Which of the following shows a picture of potential ways to address a problem.</li> </ul>	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
Developing a logic model should be a/an meaning it evolves	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
presents a picture of how your effort or initiative is sup	Multiple Choice	0.11	91.67%	12	0.92	0.29	0.09
• Which of the following is a limitation of the logic model?	Multiple Choice	0.47	83.34%	12	0.84	0.39	0.12
A logic model can be used to	Multiple Choice	0.53	91.67%	12	0.92	0.29	0.09
A framework is	Multiple Choice	0.77	58.34%	12	0.59	0.52	0.15

Displaying 1 to 10 of 10 items

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Legend

## Module 7 Quiz

Analysis Last Run September 21, 2018 12:00 PM. Run Item Analysis again to display the latest question data

Edit Test

est Sumr	mary	Discrimination				
10.0	10	0	13	9.93	00 hr 03 min	1 Good Questions (i) O Fair Questions (i)
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time	O Poor Questions (1) 9 Cannot Calculate (1)

#### Difficulty scrimination

- Good Questions (1) 10 Easy Questions (1) Fair Questions (i) Poor Questions (i)
  - O Medium Questions (1)
  - O Hard Questions (1)

#### **Filter Questions**

Select Question Type:	Select Discrimination:	Select Difficulty:		
All Question Types ▼	All Discrimination ▼	All Difficulty ▼	Go	Reset Filter

QUESTION	QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
The term used to describe a way of addressing a problem or goal that has rese	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
refers to what is done to prevent or alter a result, or t	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
Mode of delivery refers to which of the following?	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
• circumstances that contribute to why	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
Which of the following is NOT a category of the core components for intervent	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
of interventions are the distinct activities or steps taken to	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
What refers to the distinctive behaviors, norms, rol	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
What is meant by the term ethics in a community context?	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
Which of the following refers to the opportunity of an informed individual to	Multiple Choice	Cannot Calculate	100.0%	13	10	0.0	0.0
Prevention refers to which of the following?	Multiple Choice	10	92 31%	13	0.93	0.28	0.08

Displaying 1 to 10 of 10 items Show All Edit Paging...

## Legend

#### Module 1 Quiz

Analysis Last Run September 21, 2018 12:02 PM. Run Item Analysis again to display the latest question data

Select Difficulty:

Edit Test

st Summary									
10.0	10	0	16	9.38	00 hr 05 min				
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time				

Select Discrimination:

Your community formed a coalition to address the issue of adult lit.

Multiple Choice

Difficulty Discrimination

- 2 Good Questions (1) 10 Easy Questions (1) 4 Fair Questions (i) O Poor Questions (i)
  - Medium Questions (1)
- O Hard Questions (1) 4 Cannot Calculate (1)

## **Filter Questions** Select Question Type:

All Question Types ▼ All Discrimination ▼ All	Difficulty ▼ Go	Reset Filter					
QUESTION	QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
The nature of community work includes all of the following EXCEPT which one?	Multiple Choice	Cannot Calculate	100.0%	16	10	0.0	0.0
<ul> <li>Which of the following refers to new or modified programs, policies, and prac</li> </ul>	Multiple Choice	Cannot Calculate	100.0%	16	10	0.0	0.0
A/An is a mutually beneficial relationship between two or more	Multiple Choice	Cannot Calculate	100.0%	16	10	0.0	0.0
Which of the following is NOT a potential barrier or opposition to your colla	Multiple Choice	Cannot Calculate	100.0%	16	10	0.0	0.0
refers to the ability of community members to bring about.	Multiple Choice	017	93.75%	16	0.94	0.25	0.07
"Collaboration" refers to sharing all of the following EXCEPT whi	Multiple Choice	0.17	93.75%	16	0.94	0.25	0.07
• Which of the below is NOT one of the phases of the Institute of Medicine	Multiple Choice	017	93.75%	16	0.94	0.25	0.07
• Which of the following refers to people from different sectors or parts of th	Multiple Choice	0.24	875%	16	0.88	035	0.09
Which of the following refers to the optimal state of health and the realizat	Multiple Choice	0.56	875%	16	0.88	0.35	0.09

81.25%

16

Displaying 1 to 10 of 10 items

0.41

0.82

Show All Edit Paging...

0.11

Legend

0.57

#### Module 6 Quiz

Analysis Last Run September 21, 2018 12:20 PM. Run Item Analysis again to display the latest question data

Select Discrimination: Select Difficulty:

Edit Test

10.0	10	0	14	8.36	00 hr 04 min
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time

#### Discrimination Difficulty

- 5 Good Questions (i) 7 Easy Questions (i) O Fair Questions (2) 2 Medium Questions (2)
- 1 Poor Questions (i) 1 Hard Questions (i) 4 Cannot Calculate (1)

## Filter Questions Select Question Type:

QUESTION	QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE	STD DEV	STD ERROR
7 <b>3</b>	3377000000				SCORE		
Which of the following lists core tasks of leadership?	Multiple Choice	Cannot Calculate	100.0%	14	10	0.0	0.0
<ul> <li>Which of the following refers to leadership founded on the individual's</li> </ul>	Multiple Choice	Cannot Calculate	100.0%	14	10	0.0	0.0
Successful community leaders do all the following     EXCEPT which of the following?	Multiple Choice	Cannot Calculate	100.0%	14	10	0.0	0.0
Which of the following is a disadvantage of developing a leadership team?	Multiple Choice	Cannot Calculate	100.0%	14	10	0.0	0.0
<ul> <li>Which of the following lists three advantages of collaborative leadership?</li> </ul>	Multiple Choice	-0.18	92.86%	14	0.93	0.27	0.08
In which type of leadership style is a leader concerned primarily with runnin	Multiple Choice	0.4	64.29%	14	0.65	0.5	0.14
refers to the process in which an individual guides a group towa	Multiple Choice	0.54	85.72%	14	0.86	0.37	0.1
Collaborative leaders should do all of the following EXCEPT which?	Multiple Choice	0.63	92.86%	14	0.93	0.27	0.08
In which type of leadership style does a leader value people, share responsib	Multiple Choice	0.66	21.43%	14	0.22	0.43	0.12
Why create a leadership development plan?	Multiple Choice	0.68	78.58%	14	0.79	0.43	0.12

Displaying 1 to 10 of 10 items Show All Edit Paging...

## Legend

• Review recommended • Questions might have changed after deployment \* Not all submissions have been graded (OS) Question Set (RB) Random Block

#### Module 9 Quiz Edit Test Analysis Last Run September 21. 2018 12:24 PM. Run Item Analysis again to display the latest question data Test Summary Discrimination Difficulty 5 Good Questions (1) 3 Easy Questions (1) 10.0 10 oo hr o4 min 0 10 7.91 2 Fair Questions (1) 7 Medium Questions (1) 1 Poor Questions (i) O Hard Questions (1) Possible In Progress Completed Questions Attempts Attempts Possible Average Average Points Questions Time 2 Cannot Calculate (1) (i) (i) (i) 1 1 (1) Filter Questions Select Question Type: Select Discrimination: Select Difficulty: Reset Filter All Question Types ▼ All Discrimination . All Difficulty AVERAGE QUESTION QUESTION TYPE DISCRIMINATION A DIFFICULTY GRADED ATTEMPTS STD DEV STD ERROR SCORE "Cultural competence" refers to which of the Multiple Choice 100.0% 10 10 0.0 0.0 • following? Cannot Calculate \_\_\_\_ refers to people being treated Multiple Choice 10 10 0.0 0.0 differently based on who they ar... 100.0% Cannot Calculate Prejudice means which of the following? Multiple Choice -0.18 70.0% 10 0.7 0.49 0.16 Which of the following lists three activities that can Multiple Choice 80.0% 10 0.81 0.14 0.13 0.43 enhance cultural compe... \_\_\_\_\_refers to seeing different cultures and backgrounds as a gift t... Multiple Choice 0.13 80.0% 10 0.81 0.43 0.14 Which of the following lists three ways to become an ally with people from di... Multiple Choice 0.62 10 0.11 90.0% 0.9 0.32 \_\_\_\_\_ refers to refusing to recognize Multiple Choice 0.16 0.65 70.0% 10 0.7 0.49 difference and/or assigning nega... Which of the following lists three activities that can Multiple Choice 60.01% 10 0.61 0.52 0.17 0.73 enhance cultural compe... All of the following are reasons to build a culturally Multiple Choice 0.77 80.0% 10 0.81 0.43 0.14 inclusive community EX... Cultural audits may contain all of the following Multiple Choice 0.86 60.01% 0.61 10 0.52 0.17 EXCEPT which? Displaying 1 to 10 of 10 items Show All Edit Paging... Legend

Review recommended A Questions might have changed after deployment \* Not all submissions have been graded (QS) Question Set (RB) Random Block

## Module 10 Quiz

Analysis Last Run September 21. 2018 12:26 PM. Run Item Analysis again to display the latest question data

Edit Test

st Sumr	mary				
10.0	10	0	15	8.27	00 hr 06 min
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time

Select Question Type: Select Discrimination: Select Difficulty:

## Discrimination Difficulty

3 Cannot Calculate (1)

- 5 Good Questions (1) 5 Easy Questions (1)
- 1 Fair Questions (1) 5 Medium Questions (1)
- 1 Poor Questions (i) O Hard Questions (i)

#### **Filter Questions**

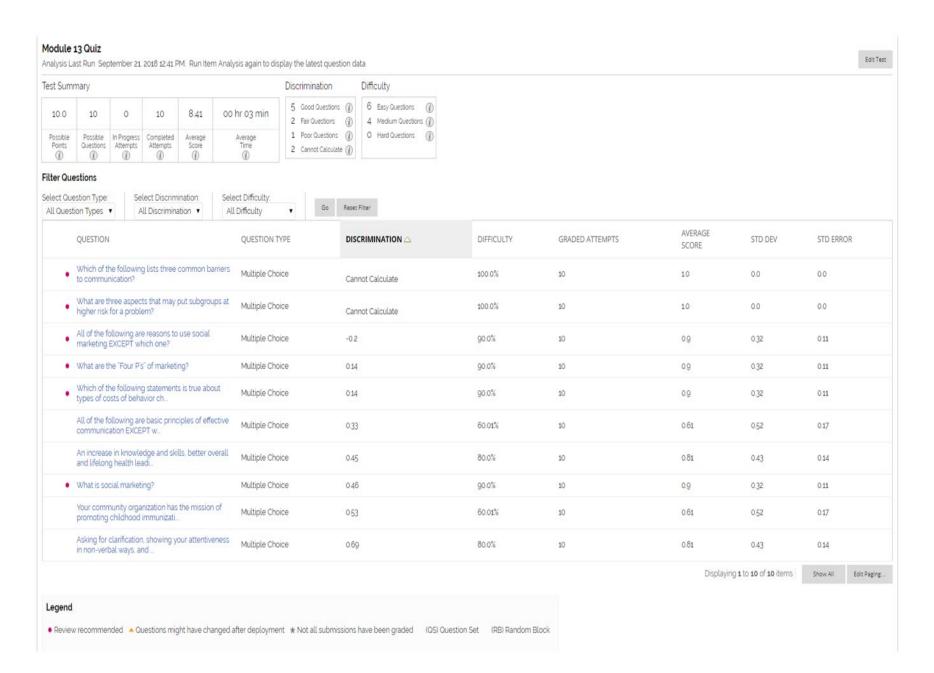
AND CONTRACTOR OF THE PROPERTY	Difficulty •	Go Reset Filter					
QUESTION	QUESTION TYPE	DISCRIMINATION	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
What is an advocate?	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
Your community partnership has the mission of improving academic outcomes in	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
<ul> <li>Advocacy objectives should be SMART*C. What does SMART*C stand for?</li> </ul>	Multiple Choice	Cannot Calculate	100.0%	15	10	0.0	0.0
Which of the following is a specific tactic of conducting advocacy research?	Multiple Choice	0.07	93.34%	15	0.94	0.26	0.07
All of the following are rules for effective advocacy EXCEPT which of the fol. $$	Multiple Choice	0.12	80.0%	15	0.81	0.42	0.11
Which of the following lists three ways to counter the opposition?	Multiple Choice	0.32	60.01%	15	0.61	0.51	0.14
Which of the following lists three essential facts that should be known by th	Multiple Choice	0.42	80.0%	15	0.81	0.42	0.11
Which of the following lists three ways in which allies may be engaged?	Multiple Choice	0.54	93.34%	15	0.94	0.26	0.07
All of the following are specific tactics for providing encouragement and edu	Multiple Choice	0.62	46.67%	15	0.47	0.52	0.14
Which of the following lists four examples of specific tactics for conducting	Multiple Choice	0.68	73.34%	15	0.74	0.46	0.12

Displaying 1 to 10 of 10 items

Show All Edit Paging...

#### Legend

• Review recommended • Questions might have changed after deployment \* Not all submissions have been graded (QS) Question Set (RB) Random Block



#### Module 12 Quiz

Analysis Last Run September 21, 2018 12:48 PM. Run Item Analysis again to display the latest question data

Edit Test

est Sumi					
10.0	10	0	12	9.25	00 hr 03 min
Possible Points	Possible Questions	In Progress Attempts	Completed Attempts	Average Score	Average Time

Discrimination Difficulty

4 Good Questions (i) 9 Easy Questions (i) O Fair Questions (1) 1 Medium Questions (1)

5 Cannot Calculate (1)

- 1 Poor Questions (i) O Hard Questions (i)

#### **Filter Questions**

elect Question Type: All Question Types   *	Select Discrimination:  All Discrimination ▼	Select Difficulty:  All Difficulty  ▼	Go Reset Filter					
QUESTION		QUESTION TYPE	DISCRIMINATION 🛆	DIFFICULTY	GRADED ATTEMPTS	AVERAGE SCORE	STD DEV	STD ERROR
What are stake	holders?	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
• Which of the fo well planning a	ollowing refers to indicators of and implemen	how Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
• Which of the fo evidence?	ollowing lists three sources of	Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
Which of the fo the findings me	ollowing involves determining ean by drawing	what Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
• What are the fo standards for g	our broad themes that the thir ood evaluation	ty Multiple Choice	Cannot Calculate	100.0%	12	10	0.0	0.0
• What is a good indicators of su	question to ask when identify coess?	ying Multiple Choice	0.09	91.67%	12	0.92	0.29	0.09
• What is meant research?	by community-based particip	patory Multiple Choice	0.41	91.67%	12	0.92	0.29	0.09
An evaluation c	question refers to what?	Multiple Choice	0.61	83.34%	12	0.84	0.39	0.12
Evaluation is criprograms and i	ucial for the work of successfi nitiatives bec	ul Multiple Choice	0.74	9167%	12	0.92	0.29	0.09
Which of the fo indicators of su	ollowing lists three examples of occess?	of Multiple Choice	0.77	66.67%	12	0.67	0.5	0.15

Displaying 1 to 10 of 10 items

Show All Edit Paging...

## Legend

