

Utilization of the “Connecting the Dots” worksheet to engage undergraduate students in health promotion program planning

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ABSTRACT

Background: Developing a health promotion program plan requires attention to the links between objectives, activities, and overall program goals. Instructors developed the “Connecting the Dots” worksheet to help students establish these linkages.

Methods: The “Connecting the Dots” worksheet included six questions pertinent to the students’ health promotion program plans. The worksheet was given to the students in a flipped classroom setting. Evaluation of the effectiveness of the tool was based upon group presentations at the end of the semester.

Results: Students developed more viable program plans that included stronger links between objectives and corresponding program activities.

Conclusions: The “Connecting the Dots” worksheet is a promising tool for engaging public health students in the process of developing health promotion program plans.

Key words: Health promotion program planning, public health, pedagogy

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INTRODUCTION

The Council on Education for Public Health (CEPH), an accrediting body for public health programs, requires that undergraduate curricula provide instruction concerning “the fundamental concepts and features of project implementation, including planning, assessment and evaluation” (Council on Education for Public Health, 2016). The Jiann Ping Hsu College of Public Health, accredited by CEPH, offers the Bachelor of Science in Public Health (BSPH) degree program. In accordance with CEPH requirements, the BSPH includes a two-course sequence in Health Promotion Program Planning (HPPI and HPPII).

Developing a health promotion program requires attention to the links between the program’s objectives, theoretical foundation, mission/goal/objectives, measures, data sources, activities, and the overall program goals. The purposes of this article are to describe use of the “Connecting the Dots” worksheet and to describe lessons learned concerning engaging public health students in the process of health promotion program planning through application of this tool.

METHODS

Setting/Participants

The health promotion program planning courses are structured upon the principles of service-learning (Cashman & Seifer, 2008) and are taught utilizing the flipped-classroom model, in which students learn basic

concepts outside the classroom and practice those concepts with the instructor acting as a coach within the classroom environment (Howard, Scharff, & Loux, 2017; McLaughlin et al., 2014). In response to employer needs calling for colleges to place more emphasis on teamwork skills in diverse groups, problem solving, and applied knowledge in real-world settings (Association of American Colleges and Universities, 2011; Hart Research Associates, 2010), the courses are structured so that students, working in groups of 4-5, partner with a local community organization to determine a health-related need and develop a program plan that is implemented within the community setting. In HPPI, students develop a health promotion program plan designed to apply course content to a real-life health issue. In HPPII, students focus on program implementation, evaluation, and reporting the results of the completed health promotion plan developed during the prior semester. Students in the course are typically undergraduate health education and promotion majors in their junior or senior year of college.

Connecting the Dots Worksheet

The “Connecting the Dots” worksheet consists of five introductory questions that summarize pertinent aspects of the health promotion program plan that has already been completed by student groups and assessed by the instructor. Question six consists of a table that allows students to visualize the program objective and the activities that connect to the overall program goal (See Figure 1). In class, students are provided examples of how to complete each column. Within the flipped classroom model, groups initially complete the worksheet together outside of class.

Subsequently, during a class activity, each group is given an opportunity to talk through one complete row of the worksheet and receive peer and instructor feedback. Students can then revisit the worksheet with their groups

and receive additional feedback from the instructor if necessary. At the end of both HPPI and HPPII, instructors evaluate the “Connecting the Dots” worksheet using evidence from student presentations.

Figure 1: Connecting the Dots Worksheet, pg. 1

“CONNECTING THE DOTS” WORKSHEET

PUBH 4132: HEALTH PROMOTION PROGRAM PLANNING I

GROUP # _____ GROUP MEMBER NAMES: _____

PROGRAM GOAL: _____

1. Write 5 sentences describing the literature you have reviewed.
2. Write 5 sentences describing your needs assessment.
3. What are your program Mission, Goals, and Objectives?
4. List the Constructs of your Theory and how you will Use the Constructs in your program.
5. Describe your Intervention Activities
6. Complete the Table Below to help ensure that you have the proper activities to measure and evaluate your objectives.

Figure 1: Connecting the Dots Worksheet, pg.2

OBJECTIVE	INDICATOR/ PERFORMANCE MEASURE	DATA COLLECTION METHOD	DATA ANALYSIS	DATA SOURCE (Instrument/i.e. where will you get this information?)	HOW DOES THIS LINK TO YOUR THEORY?	WHAT INTERVENTION ACTIVITIES SUPPORT THIS OBJECTIVE?	LINK TO GOAL
By the end of program, 80% of participants will report a 10% increase in their perceptions of the benefits of exercise.	10% Increase in perception score above baseline	Written Survey	SPSS Pre/Post	Lawrence Perception Survey/Perception Scale Score	Health Belief Model-Perceived Benefits	Benefits of Exercise Video; Lecture 2: The joys of exercise; Benefits/Barriers Discussion Activity	

RESULTS

The Connecting the Dots worksheet was developed and introduced to students in fall 2015. Final presentations, in which students presented their completed health promotion program plans, worth a total of 25 points, were scored with a rubric presented to students at the beginning of the semester. Final presentation scores were reviewed from two rotations of the Health Promotion Program Planning course sequence (fall 2015/spring 2016 and fall 2016/spring 2017). The students involved took HPPI in the fall and HPPII in the spring. Student grades for the final presentation of the health promotion program plan were placed into one of three categories: (1) exceeded expectations (earned grade of A -- 22.5 points or higher -- on presentation), (2) met expectations (earned grade of B -- 20-22.49 points -- on presentation), and (3) below expectations (earned grade of C -- <20 points or lower-- on presentation).

Students were given the worksheet in the latter part of the fall 2015 semester and were required to complete the

worksheet within their groups. They turned it in and received instructor feedback. No classroom time was spent on the sheet. No students exceeded expectations in fall 2015. In fall 2016, students completed the worksheet within their groups, and each group was given time, during a class activity, to talk through one row of the “Connecting the Dots” worksheet, and each received class as well as instructor feedback on the objective and corresponding columns that were discussed. On final presentations during fall 2016, most students (61%) exceeded expectations. Students typically had a better grasp of their health promotion plans during the spring semester (the second semester of their two-course sequence). Therefore, it was expected that more groups would exceed expectations as compared to the fall semesters. Most students exceeded expectations in spring 2016 and spring 2017. Scores that fell below expectations in spring 2017 were due to non-compliance with the specifications of the presentation rubric.

Table I: Student Performance on Program Planning Presentations

	Semester	Student Performance		
		Exceeded expectations (%)	Met Expectations (%)	Below expectations (%)
Rotation 1	Fall 2015 PPI N=32	0	50	50
	Spring 2016 PPII N=28	59	41	0
Rotation 2	Fall 2016 PPI N=41	61	29	10
	Spring 2017 PPII N=37	54	27	19

*NOTE: N=number of students in the course

DISCUSSION/CONCLUSIONS

The purpose of this article was to describe use of the “Connecting the Dots” worksheet to engage undergraduate public health students in the process of health promotion program planning. Preliminary data showed that use of the worksheet allowed students to visualize the links between program objectives and corresponding activities so that they produce more viable program plans in HPPI and implement programs that are more effective for the community in HPPII. Public health pedagogy should include tools within the classroom that facilitate students’ ability to translate classroom experiences to community-based settings (Anderson, Royster, Bailey, & Reed, 2011; Carvalho, McCormick, Lloyd, Miner, & Alperin, 2017). The following are lessons learned through use of the tool within the classroom setting:

Require sheet completion. Initially, instructors developed the tool and gave it to students as a resource to complete

within their groups. Many groups did not complete the worksheet or completed it improperly. Therefore, the instructors began to require that the worksheet be completed and turned into the instructor for feedback.

Utilize class time for sheet completion. Students should begin completion of the sheet within the class environment. This allows the instructor to explain the example included within the worksheet and to answer any questions that may arise.

Allow time for Peer Review. Time should be available for students to talk through an objective and its corresponding activities with the entire class. This allows for bi-directional feedback in that students learn to analyze the usefulness of their own methods and provide feedback to their peers (Lundstrom & Baker, 2009).

Include time for several iterations of the worksheet. Students need time to reflect on their objectives and the

corresponding activities related to them. Therefore, instructors should allow time for students to complete the worksheet, receive feedback, and reflect (Quinton & Smallbone, 2010), and then provide additional iterations as time allows.

The Connecting the Dots worksheet is a promising tool for engaging students in health promotion program planning. Use of the tool allows students to (1) gain a deeper understanding of the links between program objectives and real-world health outcomes, (2) effectively serve the communities with whom they partner, and (3) develop the skills to become effective public health practitioners.

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