

Utilizing Experiential Learning in a Research Methods Course to Increase Value and Comfort in Research

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Abstract:

Learning and applying research skills is essential for effective professionals; however many students do not see the value in understanding research as a professional skill. A graduate research methods course used experiential learning to assess students' comfort and value in research methods and found a significant increase in both student comfort and value in research. In addition qualitative methods were used to describe a progression of understanding of research methods. The article concludes with suggestions for instructors to use to better identify ways to improve learning.

Key Words:

research methods, experiential learning, teaching and learning, mixed methods.

Introduction

For professions to remain relevant and effective, practitioners must have and use research literacy skills (Kosciulek, 2010). Research is a core competency in many accredited professional programs and incorporating research into curriculum is designed to develop scientist practitioners (Bellini & Rumrill, 1999). An essential component of being a scientist practitioner is evidence-based practice; however, to effectively use evidence-based practices one must be able to analyze, synthesize, and evaluate research to make informed clinical decisions (Leahy & Arokiasamy, 2010). For this to happen, students in professional programs must have a strong understanding of the research process. However, for many professionals, research literacy is seen as a less important skill to use (Leahy, Muenzen, Saunders, & Strauser, 2009).

Exploring the literature, the following points were indicated as negative issues impacting teaching research: lack of positive student attitudes and utility regarding research (Kiener & Koch, 2009; Szymanski, Whitney-Thomas, Marshall, Sayger, 1994), non-innovated teaching methods (Dellario, 1977; Murphy, 1986), too much content to be taught in one course, and a narrow view of quality research (Bolton, 1986; Murphy, 1986; Stewart, 2002). In addition to the above concerns, suggestions have been made to improve how students value and utilize research including teaching research experientially (Szymanski et al., 1994), indicating a direct application to practice (Szymanski, Sweet, Watson, Lin, & Chan, 1998), and utilizing one course for research while also infusing research throughout coursework (Bellini & Rumrill, 1999).

Moreover, Kosciulek (2010), Murphy (1986), and Dellario (1977) contend that more needs to be done to study the interaction between research practice and professional education. Specifically Kosciulek (2010) advocated for instructors to be skilled in developing and using evidence-based practices in their teaching. Similarly, educational scholar Lee Shulman proposed that professors have content, pedagogical, and pedagogical content knowledge to increase student understanding (Shulman, 2004). As a result, professors need to develop and enhance knowledge in their discipline, expertise in teaching principles, but also unique ability to use pedagogical techniques to teach discipline specific skills, such as research methods. In other words, teaching and learning is not a 'one size fits all' model. It is feasible to believe the teaching of research skills in rehabilitation would benefit from the development of pedagogical content knowledge.

This current article is embracing Kosciulek (2010), Murphy (1986), Dellario (1977) and Shulman's (2004) comments and encourages educators to ask what it means to teach research while also investigating how students learn and apply research. From the literature, it is clear that connecting research to everyday practice is emphasized as an important teaching strategy. Experiential learning may be one potential pedagogical approach to increase students learning and value in research. "Experiential learning is a means of acquiring knowledge through action and feelings; it creates an emotional understanding and changes attitudes" (Warren, Hof, McGriff, & Morris, 2012, p. 275). Other components of experiential learning include authentic or real world tasks, and opportunities for students to discuss, reflect, and apply learning to their own experiences (Doyle, 2011).

Benson and Blackman (2003) used action research to examine curriculum changes made to improve the teaching and learning of a research methods course within a business school. Experiential learning was added to the course to develop student research skills and independent learning skills (awareness of metacognitive skills). Students reported being better prepared for future research content and the experiential learning facilitated a deeper understanding of the material.

Thomas and Quinlan (2014) researched the impact experiential learning had on a graduate qualitative research method course and sought to better understand how students learned the process of creating and running a qualitative focus group. The students reported being better able to bridge theory to practice and improved comprehension of qualitative research.

Combining experiential learning with overt efforts to enhance the learning environment may increase the potential of creating pedagogical content knowledge. One method to encourage this development is encouraging students and instructor to create a comfortable learning environment (Kiener, Green, Ahuna, & McCluskey, 2013; Warren et al., 2012). Using experiential learning and establishing a comfortable learning environment may produce the desired pedagogical conditions for students to not only learn research but change their perceptions of its utility.

Kiener, Green, and Ahuna (2014) examined if a comfortable learning environment could increase over the course of one semester and if a comfortable learning environment could predict affective learning. A comfortable learning environment was defined as the level of “comfortability” students experience with their instructor, course content, and classmates; whereas, affective learning deals with students’ ability to receive, respond, and value information. The researchers examined 46 students in five undergraduate courses and found comfortability did significantly increase over the semester and predicted affective learning.

McKinney, McKinney, Franiuk, and Schweitzer (2006) studied the role classroom community had on course attitudes, perception of learning and performance on exams. A total of 40 students in a psychology course participated in that study, with the authors finding that classroom community significantly predicted positive perceptions of the course and their learning. In addition, students who scored the highest on the community scale demonstrated the most improvement between the first and final exams.

A critical question remains; if the study and application of research methods is vital (Kosciulek, 2010), why are there not more studies conducted on teaching research methods? Therefore the purpose of this study was to implement an experiential learning component in a research methods course to determine if it would impact student value and comfort in research. Three research questions were addressed to obtain a better understanding of the impact experiential learning had on students in a research methods course: 1) Does experiential learning increase student value in research; 2) Does experiential learning increase student comfortability in research; and 3) What are the experiences of students completing a research methods course using experiential learning.

Methods

Due to the deductive and inductive nature of the research questions a mixed method designed was chosen. Qualitative data addressed student experiences; while quantitative data addressed the change in student value and comfort in research. Specifically, a concurrent mixed methods approach was used to guide the investigation. Creswell (2009) described this method as joining both quantitative and qualitative data to support a comprehensive analysis of the research questions. Both types of data are collected and integrated at the same time to inform the interpretation of the overall findings.

Course Description

The graduate course was structured to give students an understanding of basic concepts in quantitative and qualitative research design. The focus of the course was conceptual rather than on computational aspects of research. The culminating assignment required students to develop a program evaluation for a community-based agency. The only prerequisite was an undergraduate statistics course. The course was taught in a 16-week semester and met once a week for 2 hours and 40 minutes. Classes were taught with a mix of lecture, group work, and case studies. The students were required to complete two take home exams, seven homework assignments, a paper describing their program evaluation, three drafts of their paper (introduction, methods, and discussion sections), and an oral exam based on course content and their program evaluation. The Research Methods Knowledge Base (Trochim & Donnelly, 2008) was the textbook for the course.

Experiential Learning

In previous semesters, students created a hypothetical counseling program to evaluate based on a generic case study. Although the students met their learning outcomes with this assignment, the instructor was investigating alternatives to increase student learning and value in research. For this study, the instructor partnered with an independent living agency, which afforded students the opportunity to work with actual rehabilitation community programs. In addition, one of the agency's directors co-taught the course and provided valuable insight into the agency's programs, consumers, and overall agency needs. The ultimate goal for the experiential learning was twofold: to provide a real world scenario for students to apply their knowledge of research methods and for the agency to benefit from participating in the course.

Two semesters prior to the study, the first author began planning the experiential learning component and approached the community agency to inquire about their interest. Directors from the community agency and the first author met to go over the details and finalize the agency's role in the study. Originally, the first author proposed that the students would have direct contact with some of the consumers (interviews and observations) and to analyze existing program data; however, the agency wanted to keep all consumer identities confidential and thus students did not have client contact and no identifying information was used in the study. As an alternative, it was mutually agreed that the students would create a counseling program and program evaluation that could be implemented at the agency.

Participants

All of the participants were graduate students in a small mid-western private university. A total of 12 students signed consent forms to participate in the study and 11 students completed the course (10 female and one male) with 10 students in rehabilitation counseling and one student in music therapy. The students ranged in age from their early twenties to early fifties. Two students identified as African American and 9 students identified as Caucasian. In addition, the first and second authors were also the co-instructors of the course. The first author was the director of the rehabilitation counseling program and taught the majority of the content related to research design. The second author was a graduate of the program, directed multiple programs at the community agency, and taught content on the agency and program evaluation.

Qualitative Data and Analysis

Approximately 140 pieces of qualitative data were collected. The data included: instructor planning and process notes, reflective research journal (by both authors), course observations (by both authors), and all student assignments. Instructor planning notes included the learning objective for each class and class activities designed to meet the objective. Process notes were initial notes taken during and immediately after each class. Reflective research journal was reflections on all the data collected throughout the semester. Data collection and preliminary analysis happened concurrently each week.

Using the research question, "What are the experiences of students completing a research methods course using experiential learning," as a guide, data were coded, and trends were recorded. As more data were collected and analyzed, the trends emerged into a detailed account of student experience. Open ended questions such as how are you thinking about course material and how are you seeing your research knowledge develop were asked throughout the course to facilitate students to reflect on their learning. Specific research questions were also asked to gain a more complete understanding of student experiences. For example, students were asked, "If you were reading a study that used over two thousand participants that were non-randomly selected, what additional information would you need to determine the quality of the research?"

The primary method of data sampling was theoretical sampling. Corbin and Strauss (2008) defined theoretical sampling as "a method of data collection based on concepts/themes derived from data. The purpose of theoretical sampling is to collect data from places, people, and events that will maximize opportunities to develop concepts ...and identify relationships between concepts" (p 143).

It is important to note, the qualitative question was a continuation to a previous study that examined student perceptions of completing a research methods course. The core category that emerged was students moving from outsiders of research knowledge to apprentices of research design (Kiener, Koch, & Gitchel, 2009). The first author, deemed it necessary to continue to examine student experiences while completing a research course to better understand how students develop or do not develop research skills.

Quantitative Data and Analysis

The Comfortability in Learning Scale (CLS) (Kiener et al., 2013) and a scale addressing student perceptions of research value were used to answer the quantitative research questions. The CLS is a 20-item scale asking students to identify their comfort with their classmates, instructor, and learning (see Appendix A). Questions are answered on a 5-point Likert scale from 1 totally disagree to 5 totally agree. Sample questions include: I feel comfortable communicating with the professor regarding problems I might be having with this class; There is a clear structure/ routine for this class; I use information from this class in other situations (other classes or field experiences); Classmates in this class often help each other in understanding difficult material; and Material in this class that initially may have seemed challenging has become more understandable over time. Cronbach's Alpha range from .863-.933 and split half coefficients range from .811-.908 demonstrating more than satisfactory reliability. The scale also has sound content and face validity and a criterion validity coefficient of .737 (Kiener et al., 2014).

The scale addressing student perceptions of research value was created by faculty members in the rehabilitation counseling program for use in the research methods course (see Appendix B). The scale has been used for approximately 5 years with over 100 students. The scale is a 17-item tool and questions are answered on a 5-point Likert scale ranging from strongly disagree to strongly agree. Sample questions include: I am comfortable evaluating research articles; Following rehabilitation / music therapy research is useful for my practice; I plan to use research to evaluate my own practice; I am interested in contributing to research; and I am currently capable of contributing to rehabilitation/ music therapy research. Although the sample size was small, the third author examined the reliability of the measure for both administrations.

At the beginning of the class, reliability was excellent, with a Cronbach's alpha of .887 with all 17 items having corrected item-total correlations ranging from .233 to .734. At the end of the course, while the overall scale was still reliable (alpha = .71), an examination of the corrected item-total correlations revealed that two items were now negatively correlated. These items were "I only utilize research articles when required" and "Effective rehabilitation/music therapy practice does not require the utilization of research". Examining the distribution of responses to the items at both time periods does not indicate anything particularly odd (while the pattern of responses changed somewhat, but there is still sufficient variability in both items at both time periods). Before the paired t-test assessing change in attitude toward research was conducted, the above mentioned items were removed from the scales at both time periods. Both the beginning of the class and the end of the class attitudes were assessed using a 15 item scale. After removal, Cronbach's alpha increased to .850 and all items consistently measured the same underlying construct.

Results

The quantitative research questions were answered using paired sample t tests. Scores on the CLS increased from the beginning ($M = 3.96$, $SD = .59$), to the end of the class ($M = 4.45$, $SD = .40$), $t(10) = 2.73$, $p = .021$. A Cohen's d effect size of .823 was calculated. Students also increased in their positive values toward research from the

beginning ($M = 3.90$, $SD = .48$) to the end of the course ($M = 4.21$, $SD = .37$), $t(10) = 2.86$, $p = .017$. A Cohen's d effect size of .896 was calculated. In both cases, participation in the applied project assisted in student growth in the desired direction, an increase in comfortability and in valuing research.

Findings

A qualitative analysis was used to examine and document experiences of students completing a research methods course using experiential learning. As previously stated, the qualitative analysis was an extension of a prior study that found students progressed from being outsiders of research knowledge to apprentices of research design (Kiener et al., 2009). The additional data revealed a more detailed four category structure of student research ability. The four levels were: outsider, pre-novice, novice, and apprentice. In addition, each category included information on student attitudes, knowledge, and skills towards research.

Outsider. At the outsider level students have, at best, a basic understanding of research and for many; research is a course to be completed versus a skill to be learned. For example, one student wrote: "I was worried about this class because stats were never my strongest point and I assumed this class would incorporate a lot of stats" (student assignment). For this student his or her knowledge of research was statistics equals research and there was no acknowledgment of research methodologies. A belief at the outsider level would be characterized by students believing any published article was quality research; whereas, skill at this level would be evidenced by students having some difficulty using research databases and only using research articles to write papers (class observations).

Pre-novice. Students at the pre-novice level, have ambivalence toward using research in coursework and their future practice but can complete assignments with detailed directions. Moreover, student answers, although they may be correct, often do not demonstrate a depth of knowledge. The following examples illustrate students at the pre-novice level. "It is beneficial to understand research and be able to read research papers.", "Research is a scientific approach to answer a question. The types of assessments used will determine whether or not a study is qualitative, quantitative, or mixed methods.", and "The article was credible because it was written by professionals in the field..., it was peer reviewed and it is a scholarly source." (student assignment). Students are beginning to see the value in applying research, are aware of the different research methodologies, but have difficulty analyzing a methods section of an article to evaluate the conducted research.

Novice. At the novice stage, students have a greater openness to using research in their future, can define qualitative and quantitative methodologies, but may display some difficulty in naming and describing multiple types of validity (internal, external, construct, conclusion). The following quote illustrates one student's belief about his or her research ability: "I have learned a general overview of research, how to interpret and conduct. I however, don't feel that I have a full grasp of the material in depth. I enjoy reading articles but wish I could completely understand statistics." (student assignment). Other examples of students at the novice stage include: "My thinking changed about research methods after I understood what internal and external validity

means to research.” and “The research performed was qualitative. Both the research and results reflect observations and interpretations of the data gathered. Descriptive observations are performed in qualitative research” (student assignment). From this evidence it is feasible to conclude students are demonstrating increased confidence in their abilities.

Apprentice. Students at the apprentice level have more positive attitudes regarding the utility of research, can distinguish between the types of research articles and methodologies with appropriate rationales, and develop simple research designs with minimal guidance. An answer to an exam question, “Describe a threat to credibility and one way to increase the study’s credibility” provides evidence of one student’s progress to being an apprentice of research design. The student wrote:

Credibility is the integrity of the study. A threat to credibility could be not using member checking or using triangulation. To increase this study’s credibility the researchers should make sure they ask participants if the information is accurate and use multiple sources of data to answer the question (student assignment).

This student was able to define credibility and provide two methods to increase credibility in a qualitative study. Another student described his or her progression by stating:

I have grown to understand how research can be used in my future career—and not just in school. It can be as simple as finding out if my sessions are working. Having a real world way of putting research into perspective has helped me to better understand terms, statistics, and types of research (student assignment).

Here, this student was able to describe how his or her value and utility in research has grown and describe two practical means to use research as a practitioner.

Throughout the semester students were able to develop their attitudes, knowledge, and skills regarding research methods at various levels by completing multiple assignments and assessments. However, what is not clear is student capacity to continue to develop these skills in future courses or use research skills while employed. Moreover, although a four category structure emerged from the data, as would be expected, not every student progressed equally and some students displayed characteristics of multiple categories. For example, some students had a greater grasp of quantitative methodology than qualitative. Perhaps the greatest potential of this categorization is for it to be used as a teaching tool to guide instruction and as a method for students to self-assess their learning.

Discussion

The purpose of this study was to examine the benefit of using experiential learning in a graduate research methods course. More specifically, would experiential learning increase students’ value in research and produce a comfortable learning environment. In addition, a qualitative analysis sought to better understand how students learned. The mixed methods research found that the course increased the students’ sense of

comfortability and value in research methods and a four level categorization emerged describing how students' progressed in their learning.

Schultz and O'Brien (2008) in discussing the learning of research and program evaluation stated "instruction grounded in application will enable the students to more efficiently grasp concepts that will increase the likelihood of retention" (p. 289). It is more than feasible to believe that developing a comfortable learning environment and using experiential learning provided students opportunity to apply research concepts and thus increase the possibility of using the information in the future. It is also reasonable to believe when a safe or comfortable learning environment is created students will be more willing to persist when struggling and or actively reflect on their learning (Verner & Lay, 2010).

Moreover, this research and additional studies on teaching and learning embraces Kosciulek's (2010) call for educators to develop and use evidence-based teaching practices. Professional education requires students to think, act, and feel as professionals to develop a professional worldview grounded in ethical and effective practice. Studying and developing effective methods to teach research skills is essential for rehabilitation professionals to remain up to date, evaluate evidence, choose appropriate interventions, and document outcomes to benefit services to people with disabilities. If educators expect students to graduate as competent professionals then a necessary requisite is for instructors to apply those same skills in evaluating their teaching and student learning.

Applications for Use, Future Research, and Limitations

There are at least two ways to apply this research to potentially benefit the rehabilitation profession. First, the process of studying one's teaching and developing evidence based teaching practices will only strengthen the profession and provide another means for instructors to model the benefits of using evidence-based practices. When instructors overtly collect data on their teaching and student learning throughout a course they gather and evaluate evidence on a continual process to inform student learning and teaching outcomes. By modeling this behavior students can directly see how incorporating research skills on a daily basis positively impacts performance. Moreover, if research methods is mastered and reinforced through modeling, students will have a greater potential to implement these skills as new professionals.

The second benefit and tangible means to apply this research is to use the four level categorization of how students learn to develop new assessment strategies. For example, a baseline set of questions can be created and administered during the first class. Based on student answers, curriculum can be adjusted to better meet the educational needs of the students. Example questions could include: 1) what role do statistics play in the research process; 2) describe ways to evaluate the quality of a research project; and 3) how do you know if a study used a qualitative methodology. In addition to the open ended questions, Likert scale questions can be used to help students self-assess their knowledge. Possible questions include, how easy were the questions to answer and how accurate were your answers (asked after discussing the answers). As a result, a baseline and classroom norm of assessment and feedback is beginning to be created. The four categories of learning research can also be shared

with students as another self-assessment tool and as a means to increase research self-efficacy. It may demystify research by demonstrating how former students progressed and demonstrated a norm of learning. The process of studying one's teaching and monitoring effectiveness will only strengthen the development of pedagogical content knowledge.

Although this research had significant results, additional research will only enhance its applicability. Examining experiential learning and comfortable learning environments over multiple semesters and or on a program level could provide more detailed information of its impact and would also increase generalizability. Verifying the psychometric properties of the assessment on research utility would also increase the study's construct validity and ease of reproducing the results in other programs. It is also important to note this study did not use a control group to compare results to a traditionally taught course. In addition, the small number of participants similarly impact the external validity of the study. Addressing these limitations in a future study would add to the applicability and usefulness of these findings.

Continuing to qualitatively study how students learn research in undergraduate and doctoral programs could add additional dimensions and properties to the nuances of student learning. Moreover, the classification could evolve to become a taxonomy and be used to develop research learning objectives; similar to how Bloom's taxonomy (Granello, 2002) is used by instructors in creating course and program objectives. It would also be interesting to study how, if at all, community partners benefit from participating in experiential learning. Increasing the use of community partners within the curriculum would provide additional networking opportunities for students and provide agencies professional development opportunities.

Teaching is a dynamic process that requires constant monitoring and reflection to ensure student learning. Examining curriculum to better understand how to develop pedagogical content knowledge to bridge the gaps between theory and practice will only enhance the rehabilitation profession and ultimately services to individuals with disabilities. Using experiential learning and fostering a comfortable learning environment may be appropriate to increase learning.

Appendix A

Comfortability in Learning Scale

Name or ID #: _____

Directions: Please read each question carefully and indicate your response underneath each question. Each question pertains to the class you are currently enrolled in. In answering each question do your best to not be influenced by any past experiences you may have had with this course and or instructor. There are no wrong answers. Do not spend too much time on any question but please indicate the response that best captures your thought.

1. When I contribute in this class it makes a better learning experience for everyone.

1 2 3 4 5

Totally disagree

Totally agree

2. I feel comfortable communicating with the professor regarding problems I might be having with this class.

1 2 3 4 5

Totally disagree

Totally agree

3. My classmates in this class appreciate when all students demonstrate learning.

1 2 3 4 5

Totally disagree

Totally agree

4. The instructor has created a respectful environment to share ideas in this class.

1 2 3 4 5

Totally disagree

Totally agree

5. There is a clear structure/ routine for this class.

1 2 3 4 5

Totally disagree

Totally agree

6. Classmates in this class often help each other in understanding difficult material.

1 2 3 4 5

Totally disagree

Totally agree

7. The instructor in this class uses assessment procedures that are appropriate to demonstrate student learning.

1 2 3 4 5

Totally disagree

Totally agree

8. Students in this class have created a safe learning environment to challenge ideas.

1 2 3 4 5

Totally disagree

Totally agree

9. In this class there is not a clear connection between assignments and important class concepts.

1 2 3 4 5

Totally disagree

Totally agree

10. Classmates often help each other in this class in applying course material.

1 2 3 4 5

Totally disagree

Totally agree

11. Assignments for this class are clearly defined.

1 2 3 4 5

Totally disagree

Totally agree

12. In this class I do not have opportunities to provide feedback to benefit my learning.

1 2 3 4 5

Totally disagree

Totally agree

13. Expectations for this class are only changed with careful consideration and cause.

1 2 3 4 5

Totally disagree

Totally agree

14. Students have not created a respectful environment in this class to share ideas.

1 2 3 4 5

Totally disagree

Totally agree

15. I use information from this class in other situations (other classes or field experiences).

1 2 3 4 5

Totally disagree

Totally agree

16. Material in this class that initially may have seemed challenging has become more understandable over time.

1 2 3 4 5

Totally disagree

Totally agree

17. Contributions of classmates in this class do not add to my understanding of course content.

1 2 3 4 5

Totally disagree

Totally agree

18. There is a clear connection between course material and future work duties in this class.

1 2 3 4 5

Totally disagree

Totally agree

19. Student input is valued by the instructor.

1 2 3 4 5

Totally disagree

Totally agree

20. The instructor in this class has not created a safe learning environment to challenge ideas.

1 2 3 4 5

Totally disagree

Totally agree

Appendix B

QUESTIONNAIRE

Student Number: _____

Please complete the following questions. This survey will not affect your grade in any way. There will be one answer for each question.

1. Research can be utilized in my rehabilitation/ music therapy practice.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
2. I am able to read and understand literature reviews.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
3. I am able to read and understand technical research reports.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
4. I am comfortable evaluating research articles.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
5. I only utilize research articles when required.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
6. I am comfortable using library/professional databases to find rehabilitation/ music therapy information and research.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
7. I plan to utilize library/professional databases to find rehabilitation/ music therapy information and research in my practice.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
8. Following rehabilitation/ music therapy research is useful for my practice.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
9. Effective rehabilitation / music therapy practice does not require the utilization of research.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
10. I am capable of utilizing current rehabilitation/ music therapy research to establish best practices for my consumers.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
11. I plan to utilize rehabilitation/ music therapy research to evaluate my own practice.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
12. I am interested in contributing to rehabilitation/ music therapy knowledge and practice.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
13. I am interested in contributing to rehabilitation / music therapy research.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
14. I am currently capable of contributing to rehabilitation/ music therapy research.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
15. I have the ability to develop and complete a research project.
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
16. I have the ability to develop and complete a qualitative research project?
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree
17. I have the ability to develop and complete a quantitative research project?
Current: Strongly Disagree Disagree Undecided Agree Strongly Agree

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