

Best Practices Institute: Motivating and Engaging Students in Research Methods  
Dena Register, Music Education and Music Therapy

By redesigning the course and better implementing a research paper, music therapy and music education students became more invested and engaged in learning about research methods.

## I. LEVEL ONE ABSTRACTS

### I. Background

Introduction to Research in Music Education and Music Therapy (MEMT 366) is designed to introduce undergraduate students to survey types of educational/clinical research and research techniques applicable to music therapy and music education. Although this course is required for both music education and music therapy majors, most students typically do not see the importance for the course. My challenge in teaching this class has been getting students motivated and engaged. I have taught this course two previous times, and with each course offering I have made changes in order to adapt to the students needs and interests in order to facilitate student investment and “buy in” for the course. These adaptations included completely changing the course materials as well as the presentation of the material. I wanted students to apply what was learned in class to relevant research experiences while learning research methods. Thus, I added a research project that included a paper and research poster presentation. Students that present exceptional posters are invited to participate in the research conference (link to click back with more information) held each February in Wichita.

### I. Implementation

Since redesigning the course, I wanted to make a couple more changes after reflecting on how the course has gone previous semester, in order to attempt to improve the quality of student work. For the Fall 2006 course offering, I wanted to break down the research paper more, to scaffold students’ learning and result in a better finished product. Thus, students were still required to write a research paper, but it was broken down into smaller assignments during the year. I thought that a mastery approach to this assignment would enable students to learn more from their mistakes and improve their end product. In addition to the research paper, student had to present a research poster summarizing their research paper. This was not a new assignment, but I also decided to give students an opportunity to critique another student’s poster based on what they had learned from the semester-and as critical thinking exercise. To further improve student performance and to more objectively assess student work, I implemented rubrics for the paper and presentation, which were given to students prior to the project deadline. This semester I also made sure to integrate the assignments better with class time to facilitate students learning in the course by making a stronger connection between the project and the course materials. To improve student engagement in the class, I decided to add on more opportunities for participation. I required students to participate in in-class writing assignments to encourage students’ preparation and reading of the course materials. Throughout the semester there were online or in-class writing assignments/discussions. Students were expected to complete all reading assignments by the day indicated on the calendar in order to participate in the discussion conducted in-class or online.

### I. Student Performance

The mastery approached and using scaffolding improved student work. Student work from this semester was generally better than it has ever been. I attribute this change to the way the assignments were broken down into the various pieces necessary to complete the entire paper with time allotted for instructor and peer feedback.

The student examples selected represent several different elements that demonstrate growth and initiative for these students. Students were invited to design a study that is of interest to them based on the reading that they do in the initial weeks of the course for their review of literature as well as the lectures that cover the various types of research.

### I. Reflections

I am continuously working on helping students learn and practice practical strategies that apply to their work in the classroom or therapeutic setting as well as transferring skills in a variety of other settings. I find that my students are still hesitant when asked to apply knowledge and ideas they have learned in class in order to come up with proactive strategies for the clinic or classroom setting. While they seem to enjoy experiential learning activities, they are not always able to transfer and/or synthesize experiential and didactic information that relate to one another. I am now thinking about what additional changes in this course I can make that will increase the efficiency and accuracy of seeking relevant student outcomes.

At the end of the semester, I ask students a set of questions to measure what students were taking away from the course, as opposed to solely relying on the scores on the student evaluations required by the university. Students are generally able to articulate purpose and learning in their answers to these questions and I am able to get a better sense of things that I need to focus on in future offerings. Course evaluations have gone up each year with the fall 2006 ratings being above the departmental mean. The changes made in the course over time have really helped to clarify the process and importance of research for these students and they feel more comfortable in the skills they are acquiring, therefore the scores (and comments) have improved. It is also important to note that this year's group had an overall more positive attitude than students in previous years which may be attributed to both individual differences and to changes made in the course possibly enhancing student motivation. Students responded favorably to the assignments, came to class prepared and participated in discussion and peer feedback.

## II. LEVEL TWO INFORMATION

### II. Background

Introduction to Research in Music Education and Music Therapy (MEMT 366) is designed to introduce undergraduate students to survey types of educational/clinical research and research techniques applicable to music therapy and music education. This course is required for both music education and music therapy majors, and the course is typically taken students' junior year. The class is really their first exposure to research, but they take a couple of other courses in the music education or music therapy sequence that alludes to research in the area.

One of the most challenging aspects of teaching this class was getting students motivated and engaged. Students typically do not see a need or value for the course as an undergraduate, pre-service teacher or therapist. Unless it has direct impact for teaching in the classroom, they are

normally not as interested in the course work. Developmentally, these students are generally unable to understand or articulate the direct impact that research has in the classroom or therapeutic settings. This course is typically taken students' junior or senior year when students are focused on direct application to the classroom or therapy setting. Students appear to require a great deal of help framing the course concepts in a context that they would perceive as immediately applicable to their professional goals. Thus, I redesigned the course to gain students interest and have feel that it was valuable for their futures as therapists and educators.

Initially, I started teaching the course following a syllabus that was created by the colleague who had taught the class prior. Since then I have made changes with each course offering in order to adapt to the students needs and interests in order to facilitate student investment and "buy in" for the course. These adaptations have included completely changing the course materials as well as the presentation of the material. Additionally, I included a research project that included a paper and research poster presentation. I decided to invite students that present exceptional posters in class to participate in the research poster session each February at the Kansas Music Educators Association Conference in Wichita, KS. Thus, while learning about research methods, students were able to apply what was learned in class to relevant experiences performing research.

For previous course offerings my action plan was to focus on selecting appropriate reading materials, engaging students in a way that would require them to apply the material, developing assignments that were applicable towards teacher certification, and developing an assessment procedure that adequately evaluated student learning, through the use of a grading rubric. I am satisfied with using a research project as the primary assessment, but I made some adaptations. I decided to use a step-by-step, or mastery, approach for the research project because some students may not come in with the knowledge or skills to write a research paper. I wanted students to use the smaller assignments as a chance to learn and improve their writing. Mastery level teaching also emphasizes that grades are based on individual's achievement or abilities and everyone has an opportunity to alter their grade. In previous course offerings I used grading rubrics but now was ready to finalize the rubric for the final project. In addition for the current course offering, I decided to make a better transfer between the assignments and course material.

Enduring goals include students' ability to:

- Explore basic concepts/types of research in music therapy and music education
- Read current, relevant research literature in music therapy and music education and analyze research by type and design
- Communicate an understanding of relevant research and discuss implications of said research in their respective disciplines
- Learn how to conduct an experiment and write a research report in APA format
- Become familiar with appropriate professional forums for displaying and discussing research results
- Practice the following standards (as outlined by the State of Kansas, Board of Education), required for teacher certification:
  - #4-The educator understands & uses a variety of appropriate instructional strategies to develop various kinds of students' learning, including critical thinking, problem solving and reading.

- #6-The educator uses a variety of effective verbal and non-verbal communication techniques to foster active inquiry, collaboration and supportive interaction in the classroom.
- #8-The educator understands & uses formal & informal assessment strategies to evaluate & ensure continual intellectual, social & other aspects of personal development of all learners.
- #12-The educator understands the role of technology in society and demonstrates skills using instructional tools & technology to gather, analyze and present information, enhance instructional practices, facilitate professional productivity and communication, and help all students use instructional technology effectively.

## II. Implementation

To address the course goals, students will:

1. Read current, relevant research literature in music therapy and music education and analyze research by type and design
2. Communicate an understanding of relevant research and discuss implications of said research in their respective disciplines
3. Design and conduct a research study and write a research report in APA format
4. Become familiar with appropriate professional forums for displaying and discussing research results

For this course, the primary assignment was for students to carry out a self-designed research project (click back with more information). One component of the project was for students to write a research paper in APA (5<sup>th</sup> edition) format. The report must have an Introduction section, including a complete Review of Literature using at least ten sources, hypothesis and design. It must include a Procedures (Methods) section and a Results section, detailing results with graphs and tables where appropriate. The paper must be original research not used in another class. I decided to use a very systematic approach to having each student complete a research paper after realizing that this was a "new" area for undergraduate students. I initially had made a lot of assumptions regarding where they were in their understanding and comprehension of the process, not realizing that many students at the undergraduate level are still having difficulties with task analyzing, of breaking down a task, into manageable steps. Thus, the research paper was broken down into smaller components that were due throughout the semester in order to allow for editing prior to completion of the entire work.

Assignments included:

- Abstracts. Students needed to find abstracts and articles to complete a review of the literature. During one of the class sessions we met in the library and had a music librarian help them use search engines and become more familiar with the music library. I have students first find 10 abstracts before participating in a class session is devoted to discussion of the abstracts. Following this class period, they then write their research reviews.
- Research Analyses. Students completed a research analyses. They choose five of the ten abstracts to read the entire article and fill out a research review form for each of the five studies (should add that to the click back section). The form asks basic information about the article and asks them to apply the principles of the article to course concepts, such as something learned in class. For example,

topics 14-18 in the book "Understanding research Methods" by Mildred Patten discuss how and why to write a literature review. After completing this reading assignment students were asked to use one of the articles that they chose and address the essential elements from the reading as related to the article that they found. Some questions that the students might address include, "Were the citations correct?", "Was there continuity in the set-up of the topic for the study?", "Were direct quotations used?", "If so, how?", "What kinds of transitions did you find?". This was done in an effort to 1) be sure that they read the assignment and 2) help them apply what they were reading and facilitate an understanding of reading and critiquing the research literature that they found.

- Review of Literature with bibliography. One of the first components of the research project is then to do a review of the literature with bibliography. Using a minimum of 11 sources, students write a review of literature that supports your chosen research topic. This paper should include a clear introduction, transitions between articles and/or sections, and should have a clear conclusion that ties in all ideas presented in the paper and sets up their research question. This paper should include a bibliography in APA (5th ed.) style, as well as correct citations in the body of the work. I graded this section using a rubric (click back for revoflitrubric). The rubric was based on students use of the evidence to support their conclusion and their critical thinking skills, such as recognizing multiple sides and the strengths and weaknesses of each position.
- Method. Students articulated the research plan including all specifications of what they are measuring and how they are measuring it. This document must provide details about the number and type of subjects, how the data was collected, what instruments were used and what data was collected. Specificity was very important. I also graded this section using a rubric (click back for method rubric).
- Mock Data Collection. I enlisted the help of a colleague to go over the Kansas Performance Assessment requirements for music educators in Kansas and we used that as a model for having students create a way to collect the data that they needed to complete the performance assessment. This in-class exercise allowed us to get the students some preliminary information on this task, which they will have to complete as a professional as well as providing an opportunity to pinpoint what data needed to be gathered, design a simple method for collecting it and then carrying that out in the course of one class period.
- Data Collection, Results and Discussion. All students were expected to complete these final steps of their chosen research project in order to complete the research paper. These sections were turned in as part of the final, complete research paper. Students were able to schedule individual meeting with the instructor as needed in order to ask questions about their specific project.

As each portion was due, I assisted students in revisions of these sections and followed-up with discussions in class. For each section of the paper collected during the semester I used competency based grading system where students were required to continue submitting their materials until appropriate revisions were made. At the end of the semester when the final paper was due, I used an all-inclusive rubric (click back for research paper rubric) for the grading the completed project. In previous semesters students were not given the rubric in advance. This

semester I decided to distribute the rubric ahead of time to give students a better idea of what was expected for the final paper.

The other component to the project was to develop a research poster to present in class. The research project was designed for students to communicate an understanding of relevant research, and have practice developing appropriate professional forums for displaying and discussing research results. Students presented the method, outcomes and points of discussion of their research in a 30"x 40" research poster. All posters were presented during a class research poster session and students were asked to give a brief verbal description of their project and answer questions about their project. The rubric (click back to poster rubric) used to grade each poster was distributed to students ahead of time. Students were also assigned a poster to "grade", using the rubric during the poster session. I felt this exercise gave students an opportunity to think critically about the other student work and I wanted to see how they were able to assess the work of their peers and if they were able to pick out important (or missing) elements. It was another exercise to apply what they had learned in the course at the end of the semester, and it was not used in determining the students' grades.

To gain and keep students engagement during class, I frequently utilized a class format that consisted of beginning with an activity to engage students, followed by fifteen to twenty minutes of traditional lecture, and concluded with student written responses, either individually or in a pair/share format. I also incorporated aspects of the research project into the lectures and discussions. For example, when discussing research abstracts they had collected, I used the abstracts to go over terminology (i.e., what is an independent and dependent variable). I have found that students benefit from applying the terminology to research materials. I also ask students to always apply information they learned from reading research literature when filling out research review forms. This includes integrating information from the research project to concepts learned in the course.

I also required students to participate in in-class writing assignments to encourage students' preparation and reading of the course materials. Throughout the semester there were online or in-class writing assignments/discussions. Students were expected to complete all reading assignments by the day indicated on the calendar to ensure quality participation in the discussion conducted in-class or online.

## II. Student Performance

Student work from this semester was generally better than it has ever been. I attribute this change to the way the assignments were broken down into the various pieces necessary to complete the entire paper, with time allotted for instructor and peer feedback.

The selected student examples selected represent several different elements that demonstrate growth and initiative for these students. Students are invited to design a study that is of interest to them based on the reading that they do in the initial weeks of the course for their review of literature as well as the lectures that cover the various types of research.

Kody's work (link to KodyDR.pdf) reflects a case study that was conducted with a piano student with special needs that he works with on a regular basis. Because we did not spend a great deal

of time covering case studies, Kody had to a great deal of independent work in order to pull together the information necessary to complete his project. Kody's process evolved over the course of his project and he learned the importance of specificity in trying to gather information for his case study. There were particularly poignant changes in his method from the first draft to the final and he was able to arrive at some conclusions and some additional questions through his discussion.

James and Emily (Link to JamesEmilyDR.pdf) were the only ones in the class to attempt a quasi-experimental study with different treatment groups. Their study stemmed from questions that they had as music educators and was directly related to issues they will face as future band directors. Both students stated in their reflections that they learned a great deal about organizing and implementing the study in small steps. They became very invested in the outcome of their study and were disappointed that their results were not statistically significant. They did a nice job discussing potential reasons for their outcomes and generating ideas for future research.

Kelli and Hannah (link to KelliHannaDR.pdf) had a functional concept for their study and were able to find adequate support in the literature. However, they had a difficult time with the implementation due to organizational troubles and were not able to gather enough data to present clear results, this it was difficult to facilitate the type of discussion would have made transfers and arrived at meaningful conclusions. This was an example of work that started out strong but need more follow-through in order to achieve a higher standard of work.

Emily and Lindsey's project (link to EmilyLindseyDR.pdf) devolved significantly over the course of the semester. They tackled their topic from both the music educator and music therapy perspective in an effort to look at how music benefits two diverse populations with similar needs. While there were flaws in methodology both students demonstrated a great deal of initiative in the conception and execution of this study. Another unique element of this particular work was their ability to come together from two different perspectives and articulate common points. That is often difficult for students in these two majors to do.

## II. Reflections

I am continuously working on helping students learn and practice practical strategies that apply to their work in the classroom or therapeutic setting as well as transferring skills in a variety of other settings. I find that my students are still hesitant when asked to apply knowledge and ideas they have learned in class in order to come up with proactive strategies for the clinic or classroom setting. While they seem to enjoy experiential learning activities, they are not always able to transfer and/or synthesize experiential and didactic information that relate to one another. These issues have improved as a result of strategies learned and implemented as a result of my participation in the Center for Teaching Excellence "Best Practices Institute" and "Service Learning Institute". I am now thinking about what additional changes in this course I can make that will increase the efficiency and accuracy of seeking relevant student outcomes.

The attitude of the students has varied from year to year and is affected by the feedback and information that they receive from their peers prior to taking the class. In addition, students whose advisors teach performance-based or applied music courses may feel they are less prepared for the application of research to the broader population. The current arrangement has

helped students complete their preparation for a broad range of skills with courses that focus on the music performance aspects as well as the pedagogical or therapeutic aspects. Addressing this issue from the first day of class and continuing to incorporate writing and discussion opportunities for students to think about and articulate how research applies to them has helped this problem tremendously. One of the last writing activities that I ask the class to complete is a page that asks them the following questions:

- 1.) Based on what you learned in this class, what role might research play for as a music educator or music therapist?
- 2.) Discuss one study that you read and how it applies to you professional and/or personally?
- 3.) What are three things that you learned by conducting your study?
- 4.) What were the greatest challenges you faced while completing the project? Were you able to overcome this challenge? If yes, how? If no, why not?

I began using this as a measure for what students were taking away from the course, as opposed to relying solely on the scores on the student evaluations required by the university. Students are generally able to articulate purpose and learning in their answers to these questions and I am able to get a better sense of things that I need to focus on in future offerings. That being said, course evaluations have gone up each year with the fall 2006 ratings being above the departmental mean. The changes made in the course over time have really helped to clarify the process and importance of research for these students and they feel more comfortable in the skills they are acquiring, therefore the scores (and comments) have improved. It is also important to note that this year's group had an overall more positive attitude than students in previous years. They had a positive attitude at the start of the course and their attitudes may also have been attributed to changes made to the course. Students responded favorably to the assignments, came to class prepared and participated in discussion and peer feedback.

As far as consideration for future changes, I would still like to add a service learning option that puts students in front of a classroom or therapeutic setting in order to collect data. Service learning would provide students with real-world applications of the course materials in addition to assisting the community. However, there are some logistical issues in the way of time and scheduling constraints and approval from the school district and KU Human Subjects Committee that need to be addressed in order for this to be feasible.

### **III. CLICK BACK MATERIAL**

#### **III. Background**

Syllabus (366syllabus 06)

Research Conference

Students are selected to present their research project at the Kansas Music Educators Association.

#### **III. Implementation**

Textbook selection

For this course, I chose the textbook, *Understanding Research Methods*, by Mildred Patten because it is broken down into concise, one-page descriptions or explanations of fundamental



research concepts that are easy for the students to read and apply. Also, the follow up questions at the end of each section help students focus on what they need to take from that section. The end of each section also asks the reader to think about how they would apply the material. In addition, because students would be writing research papers, I also required that students have the most recent version of the publication manual for the American Psychological Association (APA). I then compiled a list of supplementary readings to further assist them when working on their research projects.

### Research project

- Research paper.
  - Introduction-Review of Literature. Prior to the literature review students did an empirical literature search and found ten abstracts on the topic and then research review forms for five studies.
  - Method.
  - Results and Discussion. Results section included data collection. Students also did mock data collection as an in-class exercise before collecting their own data.
  - Bibliography/Works Cited.
- Research Poster.
  - Present research study to class as a means for students to communicate an understanding of relevant research, and have practice developing appropriate professional forums for displaying and discussing research results. Students presented the method, outcomes and points of discussion of their research in a 30"x 40" research poster.

**(THESE ONLY IF BULLETED SECTION WAS TOO MUCH for implementation section- if so have click backs for more information for each component)**

### Abstracts

Students needed to find abstracts and articles to complete a review of the literature. During one of the class sessions we met in the library and had a music librarian help them use search engines and become more familiar with the music library. I have students first find 10 abstracts and then a class session is devoted to discussion of the abstracts. Then they do research reviews.

### Research Analyses

Students completed a research analyses. They choose five of the ten abstracts to read the entire article and fill out a research review form for each of the five studies (should add that to the click back section). The form asks basic information about the article and asks them to apply the principles of the article to course concepts, such as something learned in class. For example, topics 14-18 in the book "Understanding research Methods" by Mildred Patten discuss how and why to write a literature review. After completing this reading assignment students were asked to use one of the articles that they chose and address the essential elements from the reading as related to the article that they found. Some questions that the students might address include, "Were the citations correct?", "Was there continuity in the set-up of the topic for the study?", "Were direct quotations used?", "If so, how?", "What kinds of transitions did you find?". This was done in an effort to 1) be sure that they read the assignment and 2) help them apply what they were reading and facilitate an understanding of reading and critiquing the research literature that they found.

### Review of Literature with bibliography

One of the first components of the research project is then to do a review of the literature with bibliography. Using a minimum of 11 sources, write a review of literature that supports your chosen research topic. This paper should include a clear introduction, transitions between articles and/or sections and should have a clear conclusion that ties in all ideas presented in the paper and sets up your research question. This paper should include a bibliography in APA (5th ed.) style, as well as correct citations in the body of the work. I graded this section using a [rubric](#) (click back revoflitrubric).

#### Method

Students articulated the research plan including all specifications of what they are measuring and how they are measuring it. This document must provide details about the number and type of subjects, how the data was collected, what instruments were used and what data was collected. Specificity is very important. I graded this section using a [rubric](#) (click back for method paper rubric).

#### Mock Data Collection

I enlisted the help of a colleague to go over the Kansas Performance Assessment requirements for music educators in Kansas and we used that as a model for having students create a way to collect the data that they need to complete the performance assessment. This in-class exercise allowed us to get the students some preliminary information on this task that they will have to complete as a professional as well as providing an opportunity to pinpoint what data needed to be gathered, design a simple method for collecting it and then carrying that out in the course of one class period.

#### Data Collection, Results and Discussion

All students were expected to complete these final steps of their chosen research project in order to complete the research paper. These sections were turned in as part of the final, complete research paper. Students were able to schedule individual meeting with the instructor as needed in order to ask questions about their specific project.

[Review form](#) (Research Analyses form)

[Review of Literature Rubric](#) (RevofLitRubric)

[Method Rubric](#) (MethodPaperRubric)

[Final Rubric](#) (Research Paper Rubric)

[Poster Rubric](#) (poster rubric)

### III. Student Performance

[EmilyLindseyDR.pdf](#)

[JamesEmilyDR.pdf](#)

[KelliHannaDR.pdf](#)

[KodyDR.pdf](#)

[RossDR.pdf](#)

[SungDR.pdf](#)

[WhitneyNatalieDR.pdf](#)

[Peer Observations](#)

Student comments were superficial or they had a hard time finding constructive ways of evaluating their peers. This is definitely an area for further expansion in future course offerings.

#### Conference presentations

Five students were selected from the Fall 2006 class to present their research at the Kansas Music Educators Association conference in Wichita on February 23, 2007.

### III. Reflections

#### Student reflections about conference opportunity

“I thought that it was a great experience. It was interesting to see other's work, as well as having them ask about our poster and research. It was a lot of fun! It almost made me feel like more of an adult? Kind of weird, but it felt as though I was a colleague, rather than a student.” Emily Bogard

“It was a very rewarding experience to be able to present our research study at the KMEA research poster session. The research process has been quite the adventure, and I've discovered it to be an area of great interest to me. It was exciting to see my professors and their colleagues presenting their research studies as well because it inspires me to always continue learning, observing and seeking answers.” Lindsey Shoemaker

"Thank you for the opportunity to do the formal presentation [presentation at the Kansas Music Educators Conference]. [The opportunity to] further present my research...makes me feel really proud of my work and lets me know that research is important for others to see. I was disappointed that there were not many non KU faculty or non alums that came into the presentation room. It makes me wonder how other schools value research in their undergraduate programs. I was never interested in research before hand because it just appeared to daunting, but now I have ideas for a further degree." Kody Willnauer