

UNDERSTANDING TEACHERS' HELP-SEEKING BEHAVIORS IN A VIRTUAL PROFESSIONAL LEARNING COMMUNITY

Part I. Project Purpose

The purpose of the study is to understand physical education teachers' professional help-seeking behaviors in a virtual learning community. Four specific research questions are asked: (1) What themes of help were looked for in the virtual professional learning community? (2) Who sought help in the virtual professional learning community? (e.g. gender, school level, etc.) (3) Were the amount and themes of help sought different over the school year? (4) Were the themes of help different among different school levels?

Part II. Background

Continuous professional development events have been identified as an effective way to improve teachers' teaching practice (Lessing & Witt, 2007). Teachers, however, are expected to adopt multiple roles and a great amount of work. Time limit could be a major barrier for teachers to attend formal and face-to-face events for continuous professional development (Lind, 2007). Compared to the traditional, physical teaching resources and face-to-face professional development events, online resources are more accessible and low-cost. Online resources allow teachers to search for knowledge and information in a timely, interactive, and collaborative fashion. Researchers reported that young adults found online resources beneficial for their learning since it provides opportunities to observe others' work and questions and allows posts to be made anonymously and anytime (Er, Kopcha, Orey, & Dustman, 2015).

Traditionally, it has been especially difficult for physical education teachers to build subject-specific learning communities since there is usually only 1 or 2 physical education teachers in each school building. Through online platforms, teachers can easily form a subject-specific professional learning community. A professional learning community consists of a group of teachers who share their experience with the group, collaboratively learn new knowledge of the profession, and reflect on their practice (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). In a professional learning community, members support each other for professional development and emotionally (Stoll et al., 2006). Among all types of learning activities in a professional learning community, help-seeking is a critical behavior that allows less knowledgeable teachers to learn from their more experienced colleagues. Help-seeking is a self-regulated learning and problem-solving strategy in which learners ask for help from more competent or knowledgeable persons (Ryan, Gheen, & Midgkey, 1998). Studies have shown that seeking help from more knowledgeable colleagues is an effective strategy to maintain motivation, increase self-esteem, build resilience for teachers (Huang, Liu, & Shiomi, 2007; Mansfield, Beltman, Broadley, & Weatherby-Fell, 2016), and reduce teachers' burnouts.

While schools are encouraging teachers to use technology and online resources as their pedagogical tools, little attention has been paid to the role of online resources in professional

development for teachers (Ranieri, Manaca, & Fini, 2012). Papandrea (2012) suggested that social media can serve as an effective channel of professional development for teachers since it allows educators to be connected easily. Forte, Humphreys, and Park, (2012) revealed that classroom teachers can utilize social media to talk about their practice, share practical information and news, seek like-minded educators and advocate for values and beliefs in teaching. Nevertheless, little is known about how physical educators utilize, interact and seek help on social media. Thus, the primary aim of the proposed work is to understand physical education teachers' behaviors on social media, specifically -- help-seeking behavior.

Part III. Methods and Plan of Work

An exploratory case study design will be used to guide the design of the study. The exploratory case study design aligns with the nature and purpose of the study since it is designed to explore contemporary issues and it allows us to include different sources of evidence (e.g. qualitative and quantitative data) to understand the complexity of physical educators' help-seeking behaviors on social media (Yin, 2018).

Case Identification. The Facebook group of PE Central is selected as the case of this study. Facebook was targeted since it is the most popular social media, which is with the largest number of users ($N > 15,000$). PE Central has been the largest and most active K-12 physical education group on Facebook. It should be noted that the case is purposively chosen since it is an information-rich case that would allow in-depth analysis (Patton, 2014).

Data Collection. Two graduate research assistants will independently read through all of the posts on the Facebook group page of PE Central from June 1st, 2017 to May 31st, 2019. The research assistants will create an initial database by copying and pasting the complete content of the posts to an excel spreadsheet and entering the names, dates, time, gender, school levels, the number of replies, and the number of "likes" received. Data from a two-year period will be collected in order to determine the patterns of the group members' help-seeking behaviors throughout the year. Given that there tend to be 10 to 20 new posts in the group per day, the estimated number of posts is between 3,600 to 7,200.

Data Analysis. Content analysis is a research technique used to code and interpret text for social science study (Shapiro & Markoff, 1997; Duriau, Reger, & Pfarrer, 2007). The posts collected in this study will be analyzed using content analysis procedures and reported descriptively. The coding categories below will be used to code the raw data. The researcher and research assistants will equally and independently code all the raw data. Descriptive results of each category and theme will be calculated. Discussions will be conducted when there are disagreements until consent is achieved. ANOVAs will be conducted to determine differences in help-seeking behaviors among different genders and school levels.

Coding Template. There will be two phases of coding. First, for all the posts, the following coding categories will be coded: format of the post (i.e. text, image, video, audio), whether connected to other online resources (i.e. yes, no), school level applied (i.e. preschool, K-2, 3-5, 6-8, 9-12, college, others), the gender of the post-publisher (i.e. male, female), theme of the post (i.e. physical education content, physical education pedagogy, behavior management, socialization in schools, professional development, school/district physical education/activity events, classroom related, others), and purpose of the post (i.e. help-seeking, advertisement, advocacy, call for actions, experience and lesson ideas sharing, announcements, greeting). The second phase of coding will be focusing on the posts which were coded as aiming to seek help (i.e. help-seeking) in the first phase. The types of help sought (e.g. further online/physical resources, suggestions based on experiences, brainstorming ideas, others) for help-seeking posts will be determined. All the categories above can be double-coded if needed. Two researchers will randomly select 30 posts to practice coding. Discussion will be held after practicing coding in order to refine the coding template.

Inter-coder Reliability. To establish the inter-coder reliability, two researchers and two research assistants will be trained to code and independently code 30 posts using the finalized coding template. The inter-coder agreement of the practice trials will be calculated. Formal coding process will not start until the coders reach 85% of agreement. Upon completion of coding all the posts, the inter-coder agreement for each coding category will be calculated and reported.

Trustworthiness and Transferability. The researcher will use strategies for reducing the effect of subjective bias, while establishing trustworthiness through (1) carefully planning the study following sound qualitative design methodology; and (2) using peer debriefing to ensure credibility and confirmability (Bordens & Abbott, 2011; Creswell & Poth, 2018).

Part IV. Budget and Justification

(Redacted)

Part V. Anticipated Outcomes

The purpose of the study is to explore physical education teachers' professional help-seeking behaviors in a virtual learning community. At the end of the project, the researchers will learn (1) the themes of help that physical education teachers sought in the virtual community, (2) the characteristics of the physical education teachers who made posts in the virtual community, (3) the amount and themes of help sought each month throughout the two-year period, and (4) whether there were school-level and gender differences in the themes of the help sought.

The proposed work has the likelihood to obtain external findings in the future since the field of education has been promoting technology uses across different subject matters. The findings of the study will inform the technology and internet uses in the professional development and teacher education of physical education. Therefore, follow-up studies will be formulated to develop strategies for teacher education and professional development of technology and online resource use for pre- and in-service physical education teachers. Follow-up studies will be submitted to apply for research grants from the American Educational Research Association (AERA), the Society of Health and Physical Educators (SHAPE America), and the Michigan Department of Education (MDE).

Moreover, the results of this study and follow-up studies will be developed into multiple presentations at a variety of national and international conferences (i.e. SHAPE America and the International Association for Physical Education in Higher Education) in order to gather feedback and comments for further journal publication. In doing so, this project has the potential to advance the scholarly reputation of WMU at national and international level.

Part VI. Plans for Continuing Research

Two follow-up studies are planned based on the findings of the proposed work:

a. Pre- and in-service physical education teachers' perspectives of utilizing social media as a tool for continuous professional development. This follow-up study will examine the feasibility of using social media as a tool for continuous professional development for physical education teachers through pre- and in-service teachers' lenses. It will allow us to understand the benefits and barriers of involving in a professional learning community on social media for pre- and in-service teachers.

b. The effect of different online resources on pre-service teachers' learning. This follow-up study will include an intervention where pre-service teachers will be asked to utilize one out of the three types of online resource (i.e. social media, websites, online journals). The pre-service teacher will be given a problem-based task regarding curriculum planning. This study will help the teacher educators to understand the qualitative and quantitative effects of different online resources on pre-service teachers' curriculum planning skills.

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