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# Space to Share: Interactions Among Music Teachers in an Online Community of Practice

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## ABSTRACT

*This mixed-methods, content analysis study examined, identified, and described the characteristics and ways in which music educators participate and promote teaching and learning through discourse in an online community. Participants were members of an online social media community, the Facebook Music Teachers (FMT) group page. Using a theoretical framework of Wenger's (1998, 2006) community of practice, data collection included observing and analyzing the member posts/comments, specifically the frequency and types, as well as the language and discourses used. Members' interactions were quantified by developing an Index of Interaction (IOI), which is a sum score of (a) number of comments, (b) number of individual FMT group members who commented, and (c) number of "Likes." The posts yielding the highest IOI scores were qualitatively analyzed based on the types of comments they received. The commenting interactions were multi-dimensional and included moments of empathy, frequent activity, "following," and antagonizing. The dialogues, levels of participation, and group communication suggest that the FMT group is an online music community of practice. Social media may play a valuable role in providing a communal space for a shared purpose. These findings suggest that music teachers may benefit from new conceptions of professional development. Finally, we suggest that participating in an online community of practice, specific to music education, provides music teachers the opportunity to interact with colleagues to acquire new knowledge and reflect.*

Social media allows families, friends, and colleagues to share thoughts, concerns, and news (Wilson, Gosling, & Graham, 2012). Access to social media allows anyone with an Internet connection to read, write, and participate immediately in interactions on the Web, often receiving instant feedback from others on platforms including Facebook,

YouTube, Twitter, Wikipedia, Google Docs, wikis, and blogs (Poole, 2013). These online platforms often house specific interest groups or communities for people to congregate. For many, these interactions fulfill their internal motivations and need for social engagement (Wilson et al., 2012).

Music teachers often find this concept of community lacking in their professional development. While school districts frequently offer in-person professional development opportunities for their faculty, music teachers may find them to be insufficient, as they may not be musically situated (Bowles, 2002). This ultimately affects the quality of guidance and reflection that occurs during these sessions. In addition, music teachers are often singletons in their schools and may be teamed with colleagues outside of their discipline, such as foreign language, visual art, consumer life science, and physical education teachers, for in-school meetings and professional development (Bowles, 2002; Conway, 2008; Conway, Hibbard, Albert, & Hourigan, 2005).

Music teachers value inclusion in community to share ideas around common interests and to gain support and encouragement in professional development. Conway (2006) and others (e.g., Stanley, Snell, & Edgar, 2013) have shown that music teachers value the ability to share ideas or collaborate on concert and repertoire preparation, grant writing, or personal musical development and growth. Professional development learning is also most effective when participants have choice in how and when they take part (Hammel, 2007; Stanley et al., 2013), regardless of location. Such professional support systems can also help teachers feel involved and validated (Conway, 2006) and provide opportunities to discuss professional issues with others. This can alleviate feelings of isolation through social interaction with colleagues (Blair, 2008; Shin, 2013; Wesely, 2013). Professional development with other music teachers reincorporates the form of community that music teachers often find lacking in district professional development.

Social media might provide this sense of professional community. Social interaction is based on dialogue, although dialogue differs between virtual and physical places. For as Hine (2005) suggests, the Internet may be a place to study forms of communication, how people learn, and professional development for all, including teachers. Additionally, professional development online may be more effective than in person because it can be structured over a longer term and employs a variety of diverse strategies to support teachers (Desimone, Birman, Porter, Garet, & Yoon, 2003). Studies suggest that teacher learning does not have to be a formal, scheduled, time-bound professional development program (Clayton, 2007), but can be chosen by the teacher as “a short-term, ad hoc, and highly situated endeavor” (Zwart, Wubbels, Bergen, & Bolhuis, 2009, p. 254). An online platform can provide a space for short, concentrated professional development. While some authors are critical that learning cannot take place in an online context (Zhang, 2009), teachers may gain knowledge through social interaction in an online platform community (Bruckman, 2002), or a community of practice (CoP). How, then, can social media foster a community among music teachers for professional development?

## THEORETICAL FRAMEWORK: COMMUNITY OF PRACTICE

Wenger's (2006) community of practice (CoP) theory provides a framework to examine the idea of an online community. A community of practice stems from social learning theory and may be described as a group of people "who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2006, p. 1). Communities of practice provide a space for learning through social interaction either in person or through online social networks (Wenger, 2006; Wenger, White, & Smith, 2009; Wenger, White, Smith, & Rowe, 2005) and provide a space for participants to observe, give feedback, and refine their knowledge.

Three characteristics of a CoP distinguish it from other communities. First, CoPs have a *domain*, or a common, shared thread among the community members with which they may identify. Second, the members of a CoP make up a *community* where they may form relationships or interact and learn with and from one another. And, finally, a CoP has a common *practice* as well, in which members create, seek out, and contribute knowledge and skill to a larger, shared repertoire of resources formed through time and continuous interaction (Wenger, 1998, 2006).

Wenger, McDermott, and Snyder (2002) identified seven principles for cultivating CoPs, giving them a sense of what the authors call "aliveness." These principles include:

1. Design for evolution.
2. Open a dialogue between inside and outside perspectives.
3. Invite different levels of participation.
4. Develop both public and private community spaces.
5. Focus on value.
6. Combine familiarity and excitement.
7. Create a rhythm for the community. (pp. 51–63)

CoPs enable a deeper sense of connection to colleagues and professional growth, improved views of new pedagogy, and positive impact on teaching practices (Akerson, Cullen, & Hanson, 2009; Goodnough, 2011; Martin-Kniep, 2008). These communities may look different based on place, space, group, and activity, and as such, participants may learn differently.

Wenger et al. (2009) extended their theory of CoP to the world of online communities, describing that people may participate online to exchange ideas, make meaning, and even form new identities within the everyday functions of online life. This may occur on private, protected websites or on more open access social media, such as YouTube, Facebook, and Twitter. In education, teachers use social media to participate in CoPs. Researchers have also studied inservice and preservice teachers, observing the relationship and participation of participants within communities of practice (Cuddapah & Clayton, 2011; Flint, Zisook, & Fisher, 2011; Niesz, 2010; Takahashi, 2011). In 2013, Wesely studied the characteristics of a CoP of foreign language teachers using Twitter. Many of these language teachers felt great professional isolation in their school

environment as either the only foreign language instructor in the school or district. Wesely (2013) found that as a result of the shared knowledge and practice within the relationships built through Twitter, the teachers felt they were coming out of their “cave” of seclusion being part of a larger group (p. 312).

In music education, there is a growing body of research focusing on learning in online communities of musical practice. Paparo and Talbot (2013) examined the participation of singers performing digitally in the Eric Whitacre Virtual Choirs. They reported that singers were able to participate, learn, and make music regardless of location or musical skill and ability. Singers felt a sense of belonging to a larger community, feeling support from the members to learn, gain help, or get assistance with practicing. Waldron (2009, 2011, 2013) and Cayari (2016) found that social media may be a platform for a community of musical practice. Waldron (2009, 2011, 2013) used Wenger’s CoP theory to conduct cyber ethnographies of virtual communities of practice on a website where old-time musicians congregated. Cayari (2016) explored virtual vocal ensembles via YouTube and the ways in which participants felt a sense of community, belonging, and musical identity through their interactions with others.

Using online blogs from the former Music Educators National Conference (now National Association for Music Education) website, Bauer and Moehle (2008) observed the online professional interactions of music teachers. They categorized the interactions and conversation topics of the teachers as Curricular or Co-Curricular. Over the years, music educators have interacted through blogs, expanding into other social media forums. Currently, there are several groups on Facebook dedicated to music education in the band, chorus, and orchestra specialization areas; private studio settings; general music; music methods; and beyond. In their content analysis of the Band Directors Group (BDG) on Facebook, Brewer and Rickels (2014) used the Curricular and Co-Curricular codes from Bauer and Moehle (2008) to examine the interactions among band directors. They found that the BDG possessed the qualities that Wenger (1998, 2006) deemed vital to a CoP. The BDG functioned as a platform to discuss how to best direct instrumental ensembles. Members were most interested in collecting and contributing toward their individual “refinement of knowledge and skill” through the collective group (Brewer & Rickels, 2014, p. 15). There appears to be a growing consensus among music educators and other educators that participating in online CoPs can provide useful insight into preservice teacher education as well as designing professional development experiences for teachers.

Not every CoP functions flawlessly. Juhasz (2008) designed and implemented a college course on YouTube to examine how virtual media may change the learning process. On YouTube, viewers may “Like” or comment on a video. Unfortunately, due to the public nature of YouTube, some non-class members posted negative comments about the videos, discouraging the students from wanting to participate. In addition, there have been skeptics of the effectiveness of online communities, citing attrition as one of the major challenges to the success of a group (Johnson, 2001; Lieberman,

2000). Yet studies such as those of Waldron (2009, 2011, 2013) and Cayari (2016) indicate that despite attrition challenges, virtual CoPs continue to grow.

For this study, we used Wenger's (2006) CoP theory as a framework to examine communal learning through participation in the Facebook Music Teachers (FMT) group. The FMT group members share ideas, stories, and advice on their group page, also known as a "wall."<sup>1</sup> Many members use the wall to ask their colleagues questions. In a CoP, participants observe, give and receive feedback, and cultivate their knowledge. Drawing from previous research (Bauer & Moehle, 2008; Brewer & Rickels, 2014), the purpose of this study was to identify and describe the characteristics and ways in which the FMT group members interacted and engaged in dialogue during the beginning of the 2014–15 school year. This data comes only from the start of the school year and thus likely focuses on challenges during that time period, though subjects may go beyond that scope. Using the framework of a CoP, we explored the ways in which the FMT group may foster community and space for professional development online. Examining the frequency and ways in which the FMT online community interacts—through questions, "Likes," and comments—raises two main questions: (a) In what ways and to what extent is the FMT group characteristic of a CoP? (b) In what ways do participants engage and promote teaching and learning through discourse in this online community?

## METHODOLOGY

### *FMT*

The FMT group page was established in 2012 to "encourage conversations about all things music education and is the natural evolution of a number of social media music teachers' initiatives" (Music Teachers, 2015). The group is an asynchronous form of social media, meaning members do not need a scheduled time to participate. The FMT group may be described as a "ground up" community that was created by the teachers who comprise their membership (Lieberman & Mace, 2010). We observed what and how teachers learn and educate themselves within the "important directive power emerging from participating teachers" (Lieberman & Mace, 2010, p. 86). Six music educators, who act as the administrators of the FMT group page, monitor the comments, questions, pictures, and videos that are posted to ensure that the space remains a professional community of learning and is not used for personal or corporate promotion. These administrators are also responsible for screening and admitting all new FMT group members. Facebook does not actively monitor its user pages or accounts unless it receives a report or complaint from another Facebook user. The FMT group administrators assume the role and responsibility of routinely checking the page for posts and comments that do not adhere to the group's core values and purpose, removing as necessary. Additionally, the FMT group administrators will occasionally mediate conversations that become too aggressive to be academically productive or professional.

Facebook is public social media, but the FMT group membership requires access. Current FMT group members and FMT group administrators may admit new members. To gain membership, as outlined in the group's description written by the administrators, one must be 18 years of age or older and a preservice, active, or retired music educator. While there is no way to verify these admission guidelines, it is assumed prospective members will act on an honor system. Only admitted members can view and participate in the dialogue on the FMT group page. All three researchers of this study are FMT group members. During the time of data collection, the FMT group membership was approximately 10,000 members and included music teachers who were teaching from numerous countries including (but not limited to) the United States, Australia, Canada, Finland, and Kuwait. As of February 17, 2018, the FMT group membership was 26,937.

### ***Ethics and Confidentiality***

The ethics and strategies for reporting social media data are important considerations for researchers. The decision to publish posts focuses on the perceived level of privacy (Heilferty, 2011). As FMT group members must register in order to read and publish posts, there is some level of perceived privacy. Our data reporting strategy was guided by authors who have recently written on this issue (Abeles, Hafeli, & Sears, 2014; Heilferty, 2011).

We took cautious steps to secure the confidentiality of the posts and posters. To maintain confidentiality, we made changes in the data posts so that they could not be traced through common search engines. For example, we made minor changes to disguise a quote, replacing and substituting synonyms for particular words used in the quote (i.e., "I faced this challenge" instead of "I faced this difficulty"). We made every attempt to maintain the original language and meaning used by the FMT group members, particularly when they used unique terms. After these alterations were made, we used two search engines to confirm that the altered quote could not be traced.

Similar to previous research on music teacher professional development (Brewer & Rickels, 2014; Shin, 2013), we framed this study in CoP characteristics that Wenger (1998, 2006) and Wenger et al. (2002) identified. Using a quantitative and qualitative lens, data collection consisted of observations and analyses of the textual interactions among FMT group members. During the data collection and analysis periods we positioned ourselves as hidden participant-observers, or "lurkers" (Abeles et al., 2014; Abramo, 2016; Hine, 2005; Waldron, 2009, 2011, 2013) within the group to begin data collection. Lurking is an effective way to collect data in virtual settings (Atay, 2009). Lurkers can participate in social media by accessing a link and sharing it with others. Though we were FMT group members with full access to the group, in order to be successful lurkers we did not actively participate in the group forum with "Likes," posts, or comments during data collection.



### *Pilot Study: Fall 2013*

The 2014 study reported here evolved from a pilot study conducted during fall 2013. During the pilot study, we examined the questions FMT group members asked during the beginning of the 2013–14 school year over a period of 6 weeks between August 2013 through September 2013.<sup>2</sup> We purposefully chose this time period to observe the discourse surrounding a new school year, in hopes of gaining insight on the most frequent kinds of questions and concerns. We focused on the questions posed during 3 days within this time period. Since there is a large amount of unique posts that are shared on the FMT group page within a single day, we created criteria to determine which posts we would collect from the wall:

1. The post asks the entire FMT group a question about teaching music and/or planning to teach music.
2. The question was posted during the targeted data collection period.

Specifically, the data we collected and analyzed included (a) the post itself (direct quote from the FMT group member), (b) the number of “Likes” the post received, (c) the number of individual FMT group members who commented on the post, and (d) the total number of comments made to the original post. We copied the data from Facebook onto a secure Excel spreadsheet. Member names, photos, and any other identifying information that accompanied or were related to the posts or comments were scrubbed.

This pilot study yielded a total of 27 written individual questions containing discussion threads. We analyzed each of the 27 questions using Charmaz’s (2006) process of grounded theory coding, which begins with initial coding (line-by-line coding) to develop focused codes (axial coding). We chose this specific procedure for coding the questions because the blogged data are “detailed [and] about fundamental empirical problems [that] consists of interviews, observations, documents, or ethnographies and autobiographies” (Charmaz, 2006, p. 50). Our coding procedures consisted of reading each of the 27 questions at least three times and coding the question using the line-by-line technique. Two of the researchers, working separately, completed this stage of the analysis and created a total of 52 codes. Upon completing this initial coding, the two researchers analyzed the data again using the procedures of focused coding to consolidate the two separate lists of codes into one comprehensive list. Using the finalized coded list, the researchers completed their analysis through axial coding in order to “relate categories to subcategories, specify the properties and dimensions of a category, and reassemble the data fractured during initial coding to give coherence to the emerging analysis” (Charmaz, 2006, p. 60).

Data analysis generated five emergent themes: (a) professional development (grant writing, musical growth, health/well-being), (b) resources (“apps,” premade visual teaching aids, premade worksheets, songs, games), (c) best practices (instructional approaches and methods), (d) planning (lesson, curriculum, and concert), and (e) classroom management strategies (strategies and environment). The two researchers completed one



final step toward increasing the validity and reliability of their analysis by seeking out an external coder (one of the four administrators of the FMT group page who is a veteran music educator and published researcher) to analyze the 27 questions through coding using the five aforementioned themes. The analysis yielded a 100% agreement.

### ***Data Collection and Analysis***

For the 2014 study, we modified portions of the methodology from the pilot study, including the data collection period, the data collection protocol, and the coding process. To provide a larger sample, we collected questions posted by the FMT group members from 3 randomly selected weeks, or 21 days, between August 1, 2014, and October 31, 2014, expanding from the 3 days of data collection during our pilot study. We took screenshots of the posts as we found it to be problematic and time intensive to scroll through the posts each time during the pilot study.

With regard to the coding procedures, we used the codes derived from Bauer and Moehle's (2008) content analysis of the Music Educators National Conference (now National Association for Music Education) blog posts. Data were coded into Bauer and Moehle's two overarching themes, Curricular Issues and Co-Curricular Issues. Bauer and Moehle (2008) defined Curricular Issues as posts that are "directly relating to student learning in the classroom" and Co-Curricular Issues as those "aspects of music education in schools that are important to music programs but that generally occur outside of the classroom and/or are indirectly related to music learning" (p. 74). We chose to organize our themes with these two main categories after attending a presentation and engaging in informal discussions with Brewer and Rickels, who used these categories to organize their content analysis of the BDG on Facebook in 2014. In an effort to provide consistency that would allow corresponding interpretations of the results, we also used Bauer and Moehle's Curricular and Co-Curricular definitions to organize, synthesize, and report our data. We found parallels between the five emergent themes from our 2013 pilot study and the 2014 data.

*Index of Interaction (IOI).* While we adopted the Bauer and Moehle (2008) themes to aid in the data interpretation, we noticed additional information in the Facebook posts that could be captured by reporting a measure that accounted for the frequency and depth of the discussed issues. Viewers of a post can leave descriptive feedback by commenting. Comments can confirm people's ideas or opinions. They are active contributions to conversation, responses to critique, or questions. One may also leave non-descriptive feedback by liking or choosing emoticons to portray one's emotion, such as sad, surprised, humored, or angry. To chart these contributions, we developed the IOI, which is the sum score of (a) the number of "Likes"<sup>3</sup> the original question received, (b) the number of comments the original question received, and (c) the number of individual FMT group members who commented on the original question. Facebook automatically aggregates the number of "Likes" and comments that appear on every post.

To account for the individual number of FMT group members who commented on each question, we employed a tally system for each of the questions ( $N = 117$ ) collected during fall 2014. The tally system allowed us to keep track of the FMT group members who posted multiple times so they were accounted for just once. This way, the IOI score could serve as a measure of the level of participation among FMT group members.

*Patterns of comments.* For the qualitative portion of our study, we categorized and analyzed FMT group member discourse and ways the commenters interacted with one another within posts. We began to notice a compelling pattern within FMT group members' communications with one another in response to the questions. Since this study yielded 117 questions ( $N = 117$ ), we purposefully selected questions and their corresponding comments to analyze further. We examined the IOI scores and selected the questions that yielded the highest IOI scores during August, September, and October 2014 ( $n = 3$ ).

To examine FMT group members' posting behavior, we noted the frequency of individual members' posting activity, which included (a) the number of comments they made in response to each individual question and (b) the time and date of the comments each individual FMT group member posted. We compared the posting behaviors of all FMT group members ( $n = 148$ ) who posted at least one comment in response to the three high-scoring IOI questions. Employing the modified observation protocol, we organized all of the data into an Excel spreadsheet. We then examined the language members used while posting questions or comments. Using our theoretical framework, we looked at the three characteristics of a CoP and the seven principles for cultivating a CoP to guide our analysis of the language and discourse of comments. Similar to the pilot study, we used axial coding (Charmaz, 2006) to analyze FMT group members' comments to selected questions. This helped us to gain a better understanding of the ways in which individual FMT group members interacted and communicated with each other.

## FINDINGS

Using the five themes that emerged from the 2013 pilot study, we examined the 117 questions posted during the data collection period, August through October 2014. Resources was the most popular topic of conversation and interaction; classroom management was the least. The five themes, presented in Table 1, were grouped into the two main categories of Curricular Issues versus Co-Curricular Issues (Bauer & Moehle, 2008).

To better comprehend how FMT group members interacted within the community, we calculated an IOI score for each of the questions posted during fall 2014. The questions yielded a wide range of IOI scores (0–890; see Table 2).

Data analysis did not reveal any relationship between the IOI scores, the theme of the question, the date, and/or the time that the question was posted. The majority of the posted questions elicited a sum of zero to 50 participating members, "Likes," and comments.

**Table 1**  
Frequency and Types of Questions Posted During Fall 2014

Themes (Curricular or Co-Curricular)	Fall 2014 ( <i>N</i> = 117)
A. Resources (Curricular)	43% (50)
B. Planning (Curricular)	24% (28)
C. Best practices (Curricular)	15% (18)
D. Professional development/other (Co-Curricular)	14% (16)
E. Classroom management (Curricular)	4% (5)

*Note:* The themes are listed in rank order of the cumulative findings.

**Table 2**  
Index of Interaction (IOI) Scores for Fall 2014 Questions

IOI Score	Number of questions	Percentage
0–50	87	75%
51–100	21	18%
101–200	6	5%
207	1	1%
890	1	1%

*Note:* IOI scores are reported in ranges when multiple questions received the same IOI score.

For the next stage of analysis, we selected three of the highest-scoring IOI questions (one from each month of the data collection period) and, using the same grounded theory coding process as the pilot study, analyzed each of the individual comments ( $n = 164$ ), which were posted in response to the selected question. Each of the three selected questions received an IOI score of 159 or greater, though the questions did not always yield the highest IOI score from that month. The IOI scores were the first criteria in selecting which questions to analyze. However, we established an additional set of criteria to limit the selection of the questions to include, which was ongoing discourse directly related to Bauer and Moehle's (2008) Curricular or Co-Curricular Issue.

One question yielded an IOI score of 890, greater than the majority of the other questions (separate from the three representative questions). This particular question was coded as Co-Curricular and contained a photo of a teacher's colorful new-school-year bulletin board. The bulletin board was entitled "Do-Re-Mi-nions" and displayed eight colorful cartoon characters each holding a card with the solfege syllables of a major scale. The bright yellow cartoon characters were illustrations of the Minions from the movie *Despicable Me*. The FMT group member posted a photo of the bulletin board, asking for feedback about her work and what others thought of her idea. Since this question yielded the highest IOI of the month (and of the entire data collection period), we analyzed each of the comments ( $n = 88$ ) with focused coding (Charmaz, 2006). The majority of the comments were one-word positive responses and affirmations ending with exclamation points about the aesthetics of the bulletin board. Members

commented that they wanted to replicate the bulletin board. While this post generated the most “Likes” ( $n = 717$ ), comments ( $n = 88$ ), and individual group member comment participation ( $n = 85$ ) out of the entire data set, the original post did not fit into our set boundaries to prevent data overload and saturation. Though the post was a Co-Curricular question and fit into the initial criteria of data analysis, it did not yield interactions that were pedagogically meaningful or directly pedagogical to the group’s purpose.

The three high-scoring IOI questions are summarized in Table 3. Using Bauer and Moehle (2008), all three of these questions were categorized as Curricular Issues and

**Table 3**  
Fall 2014 Selected Questions

Month	IOI score	Themes	Question posted
August 2014	174	c. Best practices (I. Curricular) e. Classroom management (I. Curricular)	I had my first day with one of my 4th grade classes yesterday and, even after rehearsing my rules for silence almost 12 times, changing seats, and even removing 3 students from class, they would not stop acting out. They think everything is a game to the point that I had to repeat every other direction to redirect a student. Out of the 24 in the room, I think 5 paid attention really well, but for the remainder of the students, it didn’t seem to make any difference that I was in the room. I’m going to call their parents. Naturally, I was quite disheartened. Does anyone have some strategies to use with a class like this?
September 2014	207	c. Best practices (I. Curricular)	Intonation: I’m going to do a SMART goal for this. What percentage of 3rd graders should—and would—be able to sing “in tune” by the end of the year?
October 2014	159	b. Planning (I. Curricular)	My 4–5 grade winter concert program will be in the theme of Snow and Peace. I’d like to find a piece about Snow for the boys to sing. There are 19 boys and 38 girls in the chorus, and we meet once per week. Other pieces on the program include: Do You Want to Build a Snowman, from Frozen; and Dance of the Nations (from World Music Drumming) in a 3-part round with a circle dance in 3 concentric circles w/ drummers. Thanks in advance for any ideas you might have!

Note: A SMART goal is a measurable, student learning goal.

represent three subcategories: planning, best practices, and classroom management. The content of the posted questions have been slightly altered for confidentiality purposes.

Within each of these three posts, we looked at the number of “Likes,” the number of responders, and the number of comments. The selected October 2014 question regarding repertoire had the highest number of “Likes,” while the selected August 2014 question on classroom management generated the largest number of participants and conversation. The selected September 2014 post on SMART goals received the least amount of “Likes,” responders, and comments. Table 4 presents the data regarding these questions, including their IOI.

Table 5 shows the patterns of communication for the 148 FMT group members who participated in the selected question discussions, including their commenting frequency and behavior. The majority of people commented only once per question. Seventy-eight percent (116 members) of the discussants commented once per question. Eighteen percent (26 members) commented two or three times in response to one question. Three percent of the responders (5 members) commented four or five times per question. Only one responder commented six times to one question.

Using the comments from the three representative question posts (see Table 3), we examined members’ language and discourse in response to the questions. We found trends among the types of comments people were posting in response to the questions. We coded the commenting behaviors and interactions of the 148 members who participated in these three conversations into themes. Using axial and focused coding and discussion among the authors, we identified five distinct patterns of commenting behavior.

**Table 4**  
Index of Interaction (IOI) Analysis: Itemized Scores of Fall 2014 Selected Questions

Item	August 2014 selected question	September 2014 selected question	October 2014 selected question
# of likes	6	5	58
# of responders	71	29	48
# of comments	97	42	53
IOI Score	174	76	159

**Table 5**  
Frequencies of Member Comments from Fall 2014

Individual member comments	August 2014 responders	September 2014 responders	October 2014 responders
1 comment	56	20	40
2–3 comments	12	8	6
4–5 comments	3	1	1
6 comments			1
Total responders	71	29	48

### *Types of Comments to Posts*

*Drop-In.* We define drop-in responses as quick and lacking detail, often giving advice to the poster. Drop-in comments to the August 2014 question regarding classroom management included, “I think staying in touch with parents should help” or “touch base with the kids outside of music.” These comments do not provide logistical or pedagogical steps to accomplish their advice. Additionally, the drop-in comment occurs only once, with no other responses of comments within that conversation thread. The drop-in comments represented 78% of the comments made to all three of the analyzed questions.

*Empathy/Acknowledgement.* These responses provide a listening ear and state a sense of understanding to the poster’s situation. “I’d say from your post that you are doing really well with a bad situation” is an example of a popular empathizing comment in response to issues with classroom management. An empathy/acknowledgement comment contributes by providing a personal story that reflects the original post. Many comments such as “I’ve been in your shoes before, I hope it gets better!” aim to console the FMT group member who posted the original question.

*Following.* Following refers to comments that do not actively contribute to the conversation with advice or empathy but show interest in the topic, anticipating others’ responses. By participating in the comment thread by typing “following,” a member will be notified via Facebook when others post a comment to the question. We did not observe any additional comments from members who posted that they were following the original post. FMT group members who posted following comments did not contribute to that particular conversation in any other manner.

*Active.* In contrast to the following comments, an active comment is continuous and posted by an individual FMT group member, often facilitating the ongoing dialogue related to the posted question. The active comments were most commonly published within a short time frame. For example, the August 2014 question related to repertoire yielded many active comments. One active comment timestamp appeared as follows: 11:27 AM, 11:33 AM, 11:35 AM, 11:38 AM, 12:48 PM. The active comments contained many repertoire titles in each comment and followed up with comments about how students or audience respond to a particular piece or what publisher has the piece. Also, other active comments build on another member’s post, such as acknowledging that a particular suggested piece is of good quality.

*Antagonistic.* Finally, counter to empathy/acknowledgement, antagonistic comments provoke negative discourse, threaten, or even bully other FMT group members participating in the conversation. Antagonistic comments tended to be active, including advice or personal experiences. But these comments within continuous discourse often resulted in unproductive conversations, as they appeared to chastise other members. For example, within the September 2014 post regarding SMART goals, an antagonistic

comment included: “You have to learn to sing in tune [tags “Peter”] . . . it’s foolish to choose 99% . . . I have close to 800 students. How many do *you* have?” In this instance, the act of “tagging”<sup>4</sup> Peter sent a particularly negative message to the poster by calling him out directly by name. This type of comment simultaneously gives advice while belittling the original poster. It also promotes and positions the commenter as a fine or superior teacher in relation to the original poster and the other group members discussing the question.

## DISCUSSION

Professional development opportunities and virtual learning communities provide educators “forums where teachers can learn from each other, share their experiences with other teachers related to individual incidents and students in order to derive sound generalizations about effective practice, and improve their thinking and hard work” (Martin-Kniep, 2008, p. 11). The content analysis of the FMT group bares the topics of interest and concern shared by music teachers and provides context to better identify the characteristics of this community. We analyzed the data collected from the FMT group comparing the results with the three characteristics of Wenger’s (1998, 2006) theory of a CoP: domain, a shared commitment and competence; community, regular interaction among members for the purpose of learning; and shared practice, creating and contributing to the body of knowledge through interaction for a larger body of resources. As such, the group qualifies as an online CoP.

The frequencies of posts and the content comment analysis were interactive, embodying the qualities of a community. They are a way to see the types of exchanges present. They also appear to display in what ways sharing and building a growing body of resources and knowledge to the group form through these discourses. The data suggest that the interactions among members bring an “aliveness” to the group and consistently connect to the seven principles that promote and nurture a CoP, as described by Wenger (1998, 2006) and Wenger et al. (2002).

### *Seven Principles of Cultivating a CoP in Action*

The very nature of the closed Facebook group’s asynchronous character addresses CoP Principles 1 and 4. The asynchronous nature opens the space for the CoP to be “designed for evolution” while “developing both public and private community spaces” (Wenger, McDermott, & Snyder, 2002). While the FMT group is private and requires access to participate, members may bring in resources from outside the group, including links from Internet sites such as JW Pepper or YouTube, as evidenced in the October 2014 question about repertoire (see Table 3). Additionally, the posters make themselves public within the group when they post, comment, or “Like.” Or members may choose to participate in a more private fashion by observing posts or following without public announcement. The act of sharing these external voices and opinions invites the mem-



bers to discuss, affirm, and disagree with the discourse, which addresses the second principle: "Open a dialogue between inside and outside perspectives." The back-and-forth nature of questions and comments promote communication, as highlighted through the IOI. Not every interaction may be positive nor may the members agree with one another. This was apparent in the types of commenting behaviors, such as those that were antagonistic (e.g., "You have to learn to sing in tune [tags 'Peter'] . . .") where one member chastised another about how choirs must sing in tune.

FMT group members have the option to actively reply or "Like," or merely observe the ongoing dialogue of their colleagues, addressing the third CoP principle, "invite different levels of participation." FMT is a group that is run and maintained solely by its members from the "ground up" (Lieberman, 2000), who make individual choices in their level of participation. They may participate however they want or need to by "Liking" a post or comment; controlling the frequency, length, and depth of their comments; or following for more information. For example, the selected August and October 2014 questions received large IOIs ( $n > 150$ ), while the selected September 2014 question IOI score was 74. Some individual FMT group members were identified as participating in multiple themes. One member "Liked" one post, provided a one-word response to another post, and engaged multiple times within the third post thread. This may indicate that members may act and interact differently depending on the type of post and their level of knowledge, interest, experience, and expertise.

The discourse of the commenting behaviors indicates that communication may occur in different ways, also inviting different levels of participation. Commenters may be empathetic and supportive. Commenters may be active, with fast, continuous participation. Commenters may just participate one time, providing a comment containing advice or resources. Or they may follow to gain more information for their own benefit. The comments may provide empathy and acknowledgement to support one another in a positive way. Conversely, they may be antagonistic and pointed, drawing negative attention.

Additionally, we acknowledge that member participation in these posts may be skewed toward particular groups of practitioners. For example, band directors may not be as interested in discussions about apps as they may be about best practices related to instrumental music. Likewise, high school choral directors may not be interested in elementary grade-level posts. While the FMT group has a diverse pool of participants, we did not conduct an overall analysis about who participates in what kinds of posts or the levels of teaching experience among the commenters. This may be a curious extension of this study to analyze the diversity of the FMT group membership, looking for trends within the posts and comments based on members' locations, levels of experience, and areas of practice.

The FMT group administrators routinely delete posts that are intended for personal gain, such as monetary or self-promotion posts. The administrators' diligent facilitation of the group helps to keep the fifth principle of CoP, "focus on value," intact. Also, the poster

or readers of the comments have the autonomy to discern if the feedback shared is of value to them. While all voices are welcome, not every interaction may be valuable, or even positive. At times it can be an unproductive, toxic space, as illustrated by the antagonistic comments in response to the selected September 2014 question about singing in tune. It is not an acceptable common protocol in a CoP, yet it is all too common within the norms of social media, as evidenced by Juhasz's (2008) study on her YouTube-facilitated class. We cannot predict how negative feedback may affect the recipient or community, as there is no visible way to observe members' reactions. This brings up the question of in-person versus online groups. Would members participate in this type of toxic exchange of discourse if they were in a synchronous, face-to-face interaction, such as a school or organized professional development course? Designated locations—virtual or in person—may often foster space for a particular discourse to emerge.

The last two principles occurred most frequently through the types of posts that were being shared. Posts with high numbers of “Likes” and comments (such as the bulletin board post, which had the highest IOI) “combined familiarity and excitement” among the group members. This was evidenced in members' shared interest in ideas, resources, and strategies for their music classroom for beginning the school year. The more that members commented in the ongoing dialogue within the posts, the more familiar they may become with one another's issues, situations, and ideals, making it easier to draw connections between themselves and the poster or other commenters. This may facilitate a display of empathy and support, such as commenters who offered kind advice and reinforcement to the teacher dealing with behavioral issues in the selected August 2014 post. Additionally, the questions with the most active comments may be identified as excited, as members wanted to participate energetically, such as offering many different types of repertoire with links to the music or recordings in the selected October 2014 post. These comments often ended with exclamation points at the end of the sentence, suggesting eagerness.

The seventh principle states that cultivation of a CoP occurs when the members can “create a rhythm for the community.” We observed and experienced directly that the types of posts FMT group members posted elicited emotions ranging from amusement to encouragement and from difficult situations to abrasively tense interactions. Because of these varied emotions, we felt that it was important to analyze the discourses within the highest IOI scoring posts in order to categorize the types of posts that were defining the “rhythm of the community.”

By identifying the FMT group through the seven principles of a CoP, we see many strengths in how it functions as a community. However, many of its strengths are, in fact, its weaknesses, particularly as we consider the group as potential online professional development. As we stated, members may choose to participate in discourse by reading, writing, or responding to posts. One of the purposes of professional development is to bring teachers together (Blair, 2008), out of isolation, to learn from one another. The virtual context of the FMT group allows teachers to actively participate

in conversations through posts and comments. The anonymity of lurking provides a safe space for members to observe and take note of information being shared by others. While the asynchronous, short time frame meets the desires of teachers for professional development (Clayton, 2007; Wesely, 2013), the lack of face-to-face interpersonal interactions creates an opportunity for members to withdraw from the conversation at their leisure, inhibiting them from potential knowledge gain.

## CONCLUSION

The FMT group offers one way for people to socially engage and connect with one another on a consistent basis in an open space, to think through what Brewer and Rickels (2014) term “teachable moments.” Brewer and Rickels’s (2014) study of the BDG on Facebook found that participation in the group “may provide learning opportunities that traditional professional development activities do not” (p. 15). Through interaction, these teachable moments add to the larger common practice of the profession. Through collegial inquiry, the FMT group members expand their knowledge of resources, planning, best practices, professional development, and classroom management, extending common practices in a more widespread way. While members are from various locations, ages, musical, and professional backgrounds, they have the opportunity to take interest in and participate with one another’s concerns, ideas, triumphs, and stumbles.

Facebook, particularly the FMT group, as an online CoP can be considered a space for lifelong learning. The FMT group allows teachers to form a community to develop in ways that traditional professional development offerings often do not. Beyond professional development, this online CoP is a vehicle to promote teaching and learning through a professional lens and can contribute to music teachers’ ability to reflect on their practice, continuous development, and growth. Music teachers may choose to participate in the ways they may see fit for their circumstances. Further social research of online musical CoPs may warrant helpful information in better understanding the interactions of music teachers on social media. Additional studies on the impact that the FMT group may have on music teacher retention may also be of value to the profession. Examining the FMT group in greater detail may further explore teachers’ experiences and perceptions of participating in such a community as a means of professional development. This research may extend to focus more on how participation may affect members’ teaching practices and the extent and ways in which they use the knowledge and resources to make meaning and develop as professional music educators.

## NOTES

1. A wall is a public writing space in a personal or group profile where friends or members can write messages, make comments, or “Like” a post. Those who view the profile or space can see what has been written on the wall.

2. The specific dates of the pilot study have been omitted to protect the group members' privacy.
3. The "Like" button is a quick way to respond to content posted by friends and group members. A single click on the button will indicate that you like the particular content and can be done on posts, photos, video, and more.
4. A tag can be added to any post and can point to friends or anyone else on Facebook. People who are tagged receive a notification so they can see the post. The post may also go on the person's profile and appear in their friends' news feeds.

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