Does the Dependent Measure Matter? Movement of Preservice Music Educators Through Fuller and Bown Teacher-Concerns Stages

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Fuller and Bown (1975) postulated that novice teachers move through three hierarchical stages of development: concerns about self, subject matter, and finally concerns about student impact. Killian, et al. (2013) found that novice teachers when asked to list their concerns, most frequently listed self concerns and seldom listed student impact concerns. Contrastingly, when Campbell & Thompson (2007) asked teachers to rate concerns given a prepared list, novice teachers rated student impact concerns much more highly. We postulated that the conflicting results were caused by differences in the dependent measures and designed this study to ask the same respondents to list concerns and to rate prepared statements. Preservice music teachers from the same institution (N = 43) completed both a free response dependent measure and rated the Campbell & Thompson prepared statements. We further divided the pool into experienced teachers (those completing student teaching n = 20) and inexperienced teachers (those beginning student teaching n = 23) to explore the effect of teaching experience on the two measures. Results concurred with previous research with some notable exceptions. Preservice teachers overwhelmingly mentioned self on free-response measures and more often mentioned students and subject matter on rating measures. Experienced student teachers responded differently than those who had not experienced student teaching. Results are discussed in terms of future research using multiple dependent measures when evaluating the complex task of the growth of music educators.

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In a highly influential essay, “On Becoming a Teacher,” Fuller and Bown (1975) postulated that novice teachers move through three hierarchical stages of development: concern about or focus on self, concern about content or subject matter, and finally concern about student learning/student impact. Fuller and Bown queried, “How can concerns about survival be resolved and concerns about pupils be encouraged?” (p. 40). See Conway and Clark (2003) for a cogent account of the development of Fuller and Bown’s Stages of Concern.

General education researchers (Borich, 2000; Conway & Clark, 2003; Richardson & Placier, 2001) have examined these three stages extensively. Several researchers, both within general education and more recently in music education, have experimented with multiple ways to evaluate this model. For the purposes of this study, all further research cited will be limited to studies involving concerns-based stages of development with prospective music teachers.

Free Response Measures

One frequently used methodology is to examine prospective teachers' written free response entries, often comparing the beginning and end of semesters (Berg & Miksza, 2010; Buonviri & Paney, 2022; Kelly, 2000; Killian & Dye, 2009; Killian et al., 2013; 2023; Miksza & Berg, 2013; Powell, 2014; 2016; Teachout & McCoy, 2010). Because the free-response measure reflects prospective teachers' thoughts while or after teaching, we will refer to this method of data collection as "action" or respondents' self-reported concerns.

Ratings Concerns Measures

Given the concerns about exactly what the Fuller and Bown Concerns model evaluates (Watzke, 2007), and to increase ease of monitoring teacher thoughts, a second evaluative methodology involving Fuller and Brown Stages of Concerns was developed and refined (Borich, 2000; Rogan, et al., 1992), requiring respondents to rate the importance of prepared statements about teaching designed to indicate the extent of their concern with self, subject matter, or student impact. This measure is known as the Borich 45-item Teacher Concerns Checklist with 15 items for each concern category. The Borich checklist was modified to be appropriate specifically for music teachers (Austin & Miksza, 2012; Campbell & Thompson, 2007). We will refer to this method of data collection as "intention" because these items do not represent the initial thoughts of the respondents, but rather how they believe they would react in the given situations or what the respondents believe they would be concerned about at some future time.

Results of the free-response and ratings studies have not always concurred, leading to questions about the meaning of the Fuller and Bown stages. For example, Campbell & Thompson (2007) using a rating "intention" measure based on the Borich checklist (Borich, 2000) found that even freshmen emphasized student impact, while Killian et al. (2013) using a free-response "action" measure, found that student impact was mentioned rarely prior to student teaching. Such conflicting findings made us question whether the types of dependent measures might create such variations and was the impetus for the current study. Because of the paucity of music studies comparing the *same* respondents' reactions to multiple dependent measures, we designed this study to allow a comparison between what respondents believe might be important (intention) and what they report they are concerned or thinking about (action) using the Fuller and Bown Teacher Concern as a theoretical framework.

Additionally, we also considered the effect of teaching experience, because numerous researchers have found that even a small amount of teaching experience positively affected students' decision to become music teachers (Austin & Miksza, 2012), and positively affected the skills and attitudes of pre-service music teachers (Bartolome 2017; Buonviri & Paney, 2022; Henninger, 2002; Madsen & Cassidy, 2005; Powell, 2014; 2016; Schmidt, 2021). In a study particularly related to our present research, Killian et al. (2013) asked 159 preservice music teachers to list their concerns prior to student teaching and to comment again just after student teaching, analyzing their responses through the lens of the Fuller and Bown Stages (1975). Results indicated that respondents prior to student teaching made very little mention of student impact (4% of total comments). Those same respondents, however, made substantially more comments about student impact after the experience of student teaching (20% of total comments), indicating the effect of teaching experience on the Fuller and Bown stages.

Therefore, our research questions included: 1) What are the concerns (self, subject matter, student impact) of preservice music teachers as indicated on a free-response "action" measure?

2) What are the concerns (self, subject matter, student impact) of the *same* pre-service music teachers' intentions as indicated on a rating of prepared statements regarding the Fuller and Bown Stages of Concern? And 3) How would teaching experience affect either the free-response measure, or the rating scale measure?

Method

After gaining the appropriate IRB approval, we gathered data from music student teachers *(N* = 43) at a large southwestern university. Students were in the final semester of their music education degree program, with each seeking an all-level music teaching certification, and included those focusing on band, orchestra, choir, or elementary music teaching. In order to address our research question of whether the type of measure affected participants' responses regarding the Fuller and Bown Teaching Concern Stages (1975), each student teacher completed two dependent measures, an "action" free-response measure and an "intention" concerns rating measure.

"Intention" Dependent Measure: Teacher Concerns Ratings

The "intention" measure consisted of the Borich (2000) Teacher Impact Checklist, validated by Rogan, et al., (1992) and modified for music situations by Campbell & Thompson (2007). The checklist consisted of a 45-item list of comments designed to focus on self, subject matter, or student impact. Respondents answered, "When I think about teaching, am I concerned about this?" on a Likert scale anchored by 1 (not concerned) to 5 (highly concerned). The checklist contained an equal number of randomly distributed comments focusing on self, subject, and impact, allowing us to subsequently compare student responses in each category. The music-revised Teacher Impact Checklist (Campbell & Thompson, 2007) appears in Table 1.

"Action" Dependent Measure: Free-Response Concerns

The "action" measure consisted of a free-response prompt rather than a rating of prepared statements. We chose the free-response measure because of previous research (Berg & Miksza, 2010; Kelly, 2000; Killian, et al., 2013; Killian, et al., 2023; Powell 2016; Madsen & Kaiser, 1999) indicating the efficacy and frequent use of free-response. The prompt was worded "What are your concerns regarding student teaching?" We believed that a free response to a very open prompt was one of the effective ways to measure what a student was thinking at the moment.

Table 1

Fuller & Bown Statements Categorized by Self, Subject Matter, and Student Impact (Borich, 2000; revised for music by Campbell & Thompson, 2007)

Self Concerns	Subject Concerns	Student Impact
2. Whether the students respect me	1. Insufficient clerical help for teachers	5. Helping students to value music learning
4. Doing well when I'm observed as I teach	3. Too many extra duties and responsibilities	15. Increasing students' feelings of musical accomplishment
8. Managing my time efficiently	6. Not enough time for me to rest and prepare for class	17. Diagnosing student music leraning problems
9. Losing the respect of my peers	7. Not enough assistance/input from other subject-matter teachers	19. Whether each student is reaching their potential
13. My ability to prepare adequate lesson plans/musical experiences	10. Not enough time for grading, testing, assessments	22. Recognizing the social and emotional needs of students
14. Having my inadequacies become known to other teachers	11. The inflexibility of the music curriculum	23. Challenging unmotivated students
18. What the principal may think if there is too much "noise" in my classroom	12. Too many standards and regulations for teachers	29. Assisting certain students who make slow progress
20. Obtaining a favorable evaluation of my teaching	16. The rigid instructional routine	34. Understanding ways in which student health & nutrition problems can affect learning
24. Losing the respect of my students	21. Having too many students in a class	36. Meeting students' diverse needs
26. My ability to maintain an appropriate degree of class control	25. Creating support of music programs	37. Making sure that students learn musical concepts and skills by using a variety of approaches
28. Getting my students to behave	27. Not having sufficient time to plan	38. Understanding psychological and cultural differences that can affect students' behaviors
30. Having an embarrassing incident occur in my classroom	31. Not being able to cope with troublemakers in my class	39. Being flexible to meet the needs of different students
32. That my peers may think I'm not doing an adequate job	33. Skills for working with disruptive students	41. Guiding students toward intellectual, emotional, and musical growth
35. Appearing competent to parents	40. Having to do a large number of administrative tasks	43. The ability of students to take charge of their learning
44. Teaching effectively when another teacher is present	42. Planning for too many students each day	45. Being able to motivate students to learn

Effect of Teaching Experience on Teacher Responses

Previous research (Austin & Miksza, 2012; Kelly, 2000; Henninger, 2002; Killian et al., 2013; Killian & Liu, 2018; Powell, 2014; 2016) indicated that respondents who had teaching experience made fewer self-comments and more student-impact comments than did those who had less teaching experience. Thus, in order to address research question #3, we further divided our participants into "inexperienced teachers" (those beginning student teaching, n = 23) and "experienced teachers" (those completing student teaching, n = 20). Those labeled as "inexperienced teachers" had participated in shorter field-based practicum lasting a few hours, but had never participated in the full immersion experience of semester-long, all-day student teaching. They were prompted to "List questions or concerns you have prior to student teaching" a few days before beginning student teaching (Kelly, 2000; Killian, et al., 2013; Madsen & Kaiser, 1999), along with a completion of the 45-item checklist. We asked the "experienced teachers" who had just completed student teaching to "Consider how far you've come: What do you know now that you didn't at the beginning of your student teaching?", following the protocol established by Killian, et al. (2013). These participants also completed the 45-item checklist immediately upon completion of student teaching.

Subsequently, we transcribed the free-response comments of both "experienced teachers" and "inexperienced teachers" for further analysis. Because respondents could write lists or paragraphs, we considered the sentence or phrase as the primary unit of analysis (Killian & Liu, 2018; Liu & Killian, 2022; Austin & Miksza, 2010) and listed each sentence or phrase separately. This process resulted in 148 comments (inexperienced teachers = 88; experienced teachers = 60) with an average of 3.44 comments per individual. Researchers independently coded each comment as referring to self, subject matter, student, or other. We successfully coded the majority of phrases as self, subject matter or student, and coded "other" only when we could not determine the meaning of a particular comment (e.g. "details add up.") We eliminated the "other" comments ("other" frequency = 6 or 4.7% of the total number of comments) from further analysis, resulting in 142 comments being analyzed overall. We then discussed any disagreements until a consensus was reached.

Results

The purpose of this study was to compare self-reported concerns ("actions") with agreement ratings of prepared statements regarding teaching ("intentions") using the lens of the Fuller and Bown Stages of Teacher Concern (1975). We further divided the participants into "experienced teachers" (data collected at the completion of student teaching) and "inexperienced teachers" (data collected days prior to student teaching).

"Action" Measure: Free-Response Concerns

Results indicated that the analyzed free-response prompts (142 comments) resulted in the most comments about self (frequency = 93; 65% of total comments), fewer comments about subject matter concerns (frequency = 35; 25%), and the least number of comments about student impact (frequency = 14; 10%). See Table 2 for the frequency of mentions of self, subject matter, or students as well as sample comments for each category.

"Intention" Measure: Teacher Concerns Ratings

The intention checklist yielded strikingly different results on responses on the 45 items. On a 1 (low) to 5 (high) rating, respondent ratings on self-concerns averaged 3.19. Ratings on subject matter concerns averaged 2.66, and student concerns averaged 2.79. Responses ranged from a low of 1.65 to a high of 4.57 on a 5-point scale. See Table 3. Comparisons of Tables 2 and 3 allow consideration of the relative differences between the two measures.

Table 2

Action Measure (Free Response): Frequency of Self-Reported Mentions of Self, Subject Matter & Student Impact with Respondent Comment Examples

Fuller & Bown Stages	Frequency (%)	Examples of Respondent Comments
Self Concerns	93 (65%)	How to get along with cooperating teacher? Will students respect me? Will I be lonely? Showing confidence Where to eat lunch I love teaching more than I ever imagined
Subject Matter Concerns	35 (25%)	Teaching secondary instruments Classroom management Conducting skills Dealing with marching band I know now how to handle lesson plans
Student Impact Concerns	14 (10%)	Building relationships with students Give students the best learning experience possible Kids will not be perfect, but as long as they grow in the class, that's what counts

Table 3

Intention Measure (Ratings): Ratings of Prepared Statements Regarding Self, Subject, or Students with Examples of Rating Statements (N = 43)

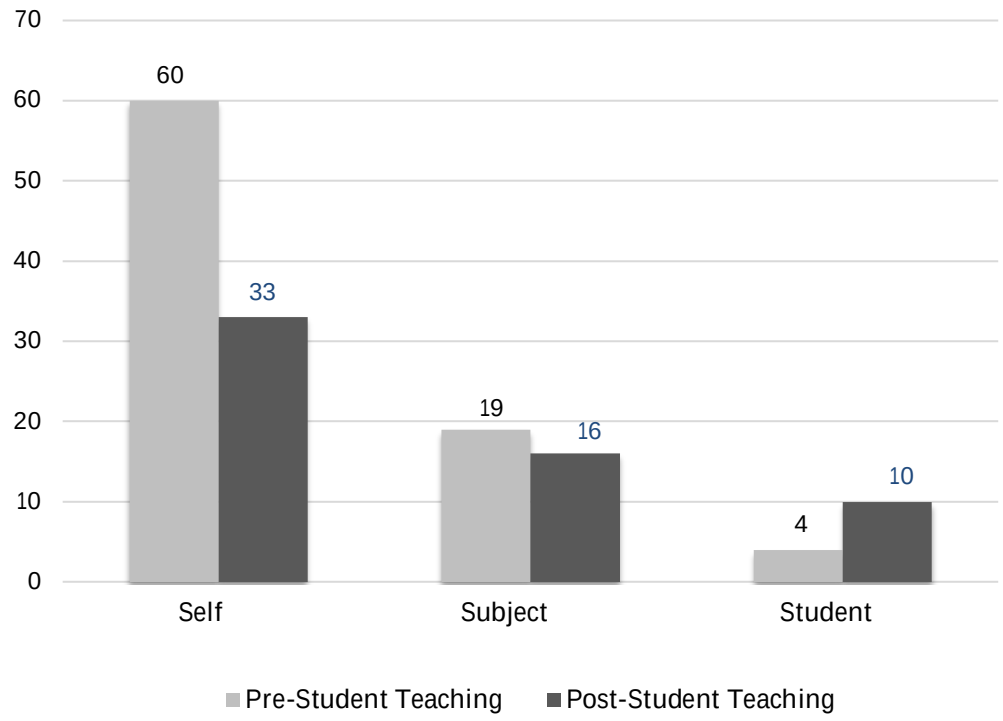
Fuller & Bown Stages	Average Ratings 1 (low)-5 (high)	Examples of Respondent Comments
Self Concerns	3.19	My ability to maintain an appropriate degree of class control (3.50 rating) Teaching effectively when another teacher is present (3.26 rating) Losing the respect of my students (3.25 rating)
Subject Matter Concerns	2.66	Not having sufficient time to plan (4.57 rating) Creating support for music programs (3.41 rating) Skills for working with disruptive students (3.41 rating)
Student Impact Concerns	2.79	Challenging unmotivated students (4.04 rating) Whether each student is meeting his or her full potential (3.30 rating)

"Action" Measure: Comparison of Experienced and Inexperienced Teacher Self-Report

On the free-response prompt, comments about self were the most frequent responses among both inexperienced and experienced teachers (93 mentions; 65%), but more frequent among the inexperienced teachers (inexperienced = 60: 72.2%; experienced = 33; 55.9%). The frequency of comments about subject matter were more similar among the two groups (inexperienced = 19; 22,8%; experienced = 16; 27.1%). Frequency of mentions of students was higher for the experienced group, but still less than their self-mentions (inexperienced = 4, 5%; experienced = 10; 17%). See Figure 1 for visual comparisons of experienced vs inexperienced teacher free response comments (action dependent measure).

Figure 1

Inexperienced (Pre-Student Teaching n = 23) vs. Experienced (Post-Student Teaching n = 20) Teachers' Frequency of Self-Reported Mentions of Self, Subject, or Students ("Action" Measure)

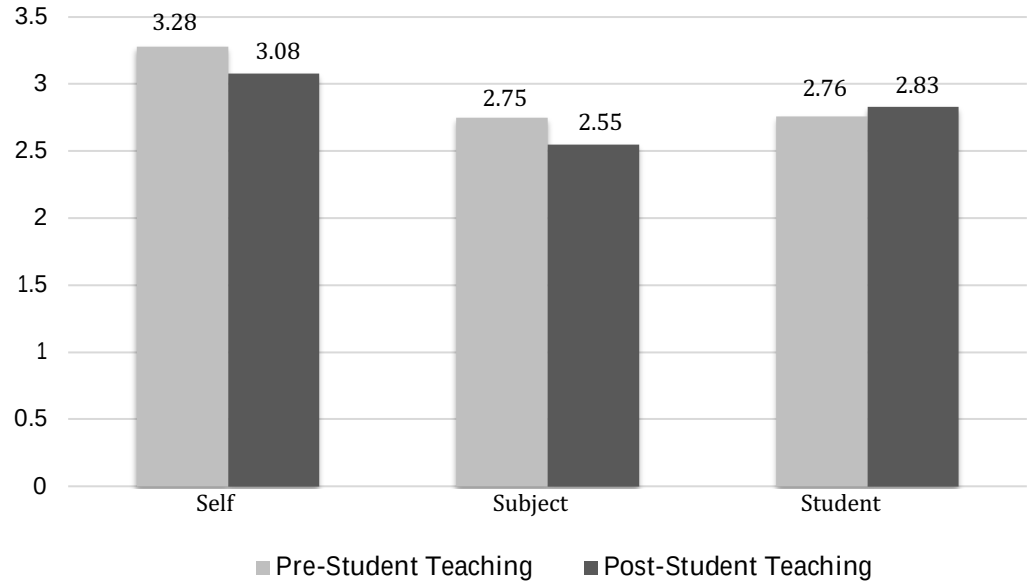


"Intention" Measure: Comparison of Inexperienced and Experienced Teacher Ratings

Division of the experienced and inexperienced teacher ratings on prepared statements regarding teaching ("intention" dependent measure) showed that inexperienced teachers used a wider range of ratings (1.65 – 4.57) than did the experienced teachers (2.10 – 3.50). Specifically, the average of self-concern ratings remained slightly higher than the other categories among both the inexperienced teachers (3.28) and experienced teachers (3.08). Subject content ratings were 2.75 (inexperienced teachers) vs. 2.55 (experienced teachers). Student concern ratings among inexperienced teachers were 2.76 vs. 2.83 among experienced teachers. Figure 2 allows comparison of the average ratings for inexperienced and experienced teachers across the three categories.

Figure 2

Inexperienced vs. Experienced Teachers' Ratings of Prepared Statements Regarding Self, Subject, or Students ("Intention" Measure)



Discussion

This study was designed to compare results of two different types of dependent measures using the Fuller and Bown Stages of Teacher Concerns (1975) as a theoretical framework. When students were asked to self-report their concerns, the majority of the concerns mentioned concerns were about self, followed by subject matter concerns, with fewer comments about students or student impact. Such findings concur with Fuller and Bown's (1975) speculation and previous findings about the tendency of new music teachers to focus on themselves (Berg & Miksza, 2010; Killian et al., 2013; Killian & Liu, 2018; Miksza & Berg, 2013) as measured by written free-responses or verbal interviews.

However, these results conflict with previous researchers who used teacher concern ratings as dependent measures, finding that both general teachers (Borich, 2000; Watzke, 2007) and preservice music teachers (Campbell & Thompson, 2007) indicated a much stronger student focus or subject matter focus than a self focus. In the current study, when the *same* students completed the music-revised Borich rating scale of teacher concerns (see Table 3 and Figure 2), they still indicated slightly higher ratings on self, followed by student impact and finally subject concerns. Strikingly, the analysis of free-response comments demonstrated much higher frequencies of self-concern, with a great discrepancy among the three concern categories. However, the 45-item ratings revealed much more nearly equal ratings among the three stages, although the self-concern was still the highest rated concern.

Because free-response results were displayed in frequency of mention of each category and the ratings dependent measure results were displayed in average scores on a 1(low) to 5 (high) scale, results were difficult to compare. Relative ranking of each category allowed greater ease of comparison. Table 4 displays the ranks of each category regardless of how the data were measured

and allows comparison of the current free-response frequencies (expressed as percentages) and the current ratings dependent measure (expressed as average scores on a 1-5 rating scale) as well as the ratings on the Borich Checklist for the Campbell and Thompson study (2007). Perusal of Table 4 reveals that self-concerns were ranked first for both measures of the current study, but were ranked second in the Campbell and Thompson study. Contrastingly student impact concerns were ranked last in the current free-response measure, but second in both the current and past ratings dependent measure. Remember that the current rating scale and the past rating scale (Campbell & Thompson, 2007) used identical measurement instruments.

We puzzled why self concerns might be highest in both measures of the present study, but ranked second in the earlier ratings study (Campbell & Thompson, 2007). Were the respondents in the two studies different in some way? Are the score differences too small to be important? The present study included only 43 respondents, all from the same university and the same music education program, while the Campbell and Thompson study included l121 students from 16 U.S. universities. Were the current students different somehow from the pool of students from the 2007 study? One remarkable aspect of Table 4 is the fact that the current students rated all the statements lower than did the 2007 students. Have students changed, or is this small sample somehow different? Please note that the current data were collected pre-covid, so we cannot use the pandemic as a possible explanation for the difference. Perhaps these data firmly demonstrate the importance of sample size in which a small number of respondents can skew the results.

Conclusions

In the current investigation, the findings drawn from the free-response measurement concurred with previous studies using the same free-response dependent measures; however, such findings demonstrated a discrepancy when comparing the results of ratings of prepared statements. Thus, the results of this study demonstrated that the specific dependent measure made a difference in responses, lending credence to the idea that conclusions should not be drawn from the results of a single measure. Clearly, multiple measures, compared with each other, are called for, especially in such a complex developmental task as teacher preparation (Conway & Clark, 2003; Watzke, 2007).

Concurring with previous research (Campbell & Thompson, 2007; Kelly, 2000; Killian, et al., 2013; Richardson & Placier, 2001), in our current study teaching experience affected results in both action and intention dependent measures. We expected these changes, especially regarding the increase in interest in teacher impact among experienced teachers (defined as those who had completed student teaching). Further research regarding the two measures of Fuller and Bown Stages of Concern among early, middle and late career music teachers is certainly indicated. A few anomalies occurred when examining the effect of prior teaching experience. For example, we wondered why experienced teachers used only the middle range of the rating scale (2.10 – 3.50) while inexperienced teachers used a much greater range of the scale (1.65 – 4.57). Perhaps that narrowing of the rating scale was due to experience, or perhaps, because this was a small sample, it was individual to this particular group of respondents. On the free-response measure we noticed that although experienced teachers overall made more free-response comments about students than did inexperienced teachers, a detailed examination revealed that this increase did not occur in every teacher. In fact, only five of the 20 individual experienced teachers accomplished the increase in student mentions. Such results point out the idiosyncratic nature of teaching, and that teacher preparation is still a matter of influencing one teacher at a time.

Results should be generalized with caution due to the small sample size (N = 43) and the fact

that all of these preservice teachers were from a single university and a single music education program. Results do indicate, however, the importance of asking the same respondents to complete multiple dependent measures. Clearly further research is indicated regarding the use of multiple dependent measures, particularly when evaluating such complex topics as the development of young music educators. Future research might include the comparison of other types of dependent measures with the same respondents, and whether Fuller and Bown stages are apparent in other cultures and other music teaching settings. Further study might also include asking the *same* teachers to complete both measures prior to and following student teaching. Additionally, we know relatively little about the responses of preservice music teachers from international cultures, and this is an area ripe for future exploration in our global society. The results of this study could be summarized as "If you ask a question differently, you get a different answer." Clearly further research is needed.

Keywords: Fuller and Bown Stages of Concern, preservice music teachers, free-response measure, rating scale measure

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