INSERVICE PHYSICAL EDUCATORS' STAGES OF CONCERNS: A TEST OF FULLER'S MODEL AND THE TCQ—PE

Terry Conkle

Teachers' concerns have long been an issue for study in the education profession. Frances Fuller, in 1955, serendipitously began to find that teachers pass through distinct levels of concerns during their preservice careers (Fuller, Bown, & Peck, 1967; Fuller, Pilgrim, & Freeland, 1967). She conceptualized later (Fuller, 1969; Fuller, 1974) that teachers shift through three developmental stages of concerns (SoC) during their teaching careers.

Fuller's (1969) overall definition of "teacher concerns" relates to teachers' perceived apprehension, distress, or interest regarding the interrelationship of themselves and the elements of their work-environment. The three SoC that she conceptualized are self, task, and impact concerns. The self stage encompasses feelings of one's self-adequacy, how others perceive one's teaching, and survival in the teaching ecology. The task phase relates to one's feelings of how myriad teaching duties, that must be regularly performed, will be adequately accomplished under the prevailing conditions of the work-site. The impact level is characterized by empathetic feelings for students and how well instruction affects their achievement and performance. Fuller submitted that teachers may have concerns in all stages at once, and that matriculation through the SoC is not automatic. She further submitted that although teachers might show indications of being in multiple stages at once, one stage would be demonstrated more dominantly than the others depending on the teaching experience of a given individual (Rutherford & Hall, 1990).

Literature regarding physical educator teaching concerns has been minimal and findings contradictory. While there are reports of teacher migration through the SoC among preservice teachers, they have not been precisely as Fuller's theory predicts (Boggess, McBride, & Griffey, 1985; Wendt, Bain, & Jackson, 1981). Fung (1993) found that preservice and inservice physical educators demonstrated no statistical differences in relation to their SoC when going strictly by Fuller's model.

Wendt and Bain (1989) found that physical educators did not fit Fuller's model. The only scale from that study that accurately measured concerns was the self scale. Concerns for inservice teachers were lower for impact than those found for preservice teachers in the study. Similar results have been found in other studies as well (Boggess et al., 1985; Wendt, 1979; Wendt et al., 1981).

On the other hand, research conducted with inservice physical educators has substantiated Fuller's SoC (McBride, Boggess, & Griffey, 1986). Later (McBride, 1986), Fuller's model was again validated in a follow-up study of both inservice and preservice physical educators.

There is also recent evidence that previous teacher concerns instruments (e.g. the TCCL and the TCQ) used in early studies with physical educators may have been in-

Terry Conkle is a faculty member in the Department of HPER at Alabama A & M University.

appropriate for measuring concerns (specifically task concerns) in this specialized field (McBride, 1993). McBride (1986) and McBride et al. (1986) learned that while studies support the TCQ self and impact scale loadings, the task scale consistently exhibited weak factor loadings.

McBride (1993) re-designed the TCQ and developed an instrument appropriate for measuring physical educators' SoC. The resulting Teacher Concerns Questionnaire—Physical Education (TCQ—PE) is reliable and valid for determining physical education professionals' SoC (for pilot-testing details, see McBride, 1993).

McBride (1993) suggests that administering the TCQ—PE to physical educators can help identify session topics for inservice education and training (INSET).

INSET encompasses the terms faculty development, personal development, professional development, staff development, and teacher development. INSET, in this case, constitutes any educational or training activity in which educators participate, subsequent to receiving first teacher certification credentials, to enhance their professional attitudes, knowledge or skills so that students can be more effectively educated (Bolam cited in Eraut, 1987 p. 730).

One of the primary qualities of effective professional development is to include participants in the planning of meaningful activities and topics (Merenbloom, 1984). Needs-assessment is especially important given the uniqueness of physical educators who work in situations that are unparalleled by typical classroom teachers' worksettings (Oliver, 1987). Moreover, McBride (1993) called for further research into the issues associated with validity of Fuller's SoC model.

The guiding theoretical framework for this study is based primarily on work completed by McBride and others (1985, 1986, 1993), Wendt and associates (1979, 1981, 1989), and Rutherford and Hall (1990). The main purpose of this research was to replicate McBride's (1993) research, and compare results from this study to McBride's 1993 findings. A second objective was to test the reliability and validity of the TCQ—PE for physical educators in general. Another aim of this study was to identify collective concerns of inservice physical educators, (i.e., elementary, junior high/middle, and secondary), to aid in planning physical education-oriented INSET programs for Alabama's physical educators.

Methods

Survey participants included inservice physical educators. The response-rate for the study was 61.9% (N= 265). Of the respondents, 81 were elementary (30.6%), 95 junior high/middle (35.8%), and 89 secondary (33.6%) physical educators. Participants' experience ranged from one to 34 years. The mean experience-level was 14.5 years, with a median of 14 years, and a mode of 12 years. Additionally, the sample consisted of 138 males (52.1%) and 127 females (47.9%).

Instrument

McBride's TCQ—PE (1993) was used to collect the data in this study (Figure 1). The instrument contained ample space for qualitative input from teachers regarding their concerns as suggested by R. E. McBride (personal communication). Various demographic information was also requested including such teacher characteristics as age, gender, highest degree earned, and so forth. (Conkle, 1994).

Data Collection

Data from the inservice physical educators were obtained via questionnaires, including a cover letter which explained the purpose of the study. Teachers were allowed a total of four weeks to return-mail their questionnaires, which were completed on a voluntary basis. Prospective subjects

Directions == When answering, please mark an "X" through the number representing your response.

Please read each statement, then ask yourself:

WHEN I THINK ABOUT MY TEACHING, HOW MUCH AM I CONCERNED ABOUT THIS?

1 = Not Concerned 3 = Moderately Concerned 5 = Extremely Concerned
2 = A little Concerned 4 = Very Concerned

1) Lack of continuity in the yearly PE program.....(1) (2) (3) (4) (5)
2) Lack of administrative support for the PE program.....(1) (2) (3) (4) (5)
3) Doing well when a supervisor is present.....(1) (2) (3) (4) (5)
4) Meeting the needs of different kinds of students.....(1) (2) (3) (4) (5)
5) Lack of a consistent or equitable grading policy in PE.....(1) (2) (3) (4) (5)
6) Diagnosing student learning problems.....(1) (2) (3) (4) (5)
7) Feeling more adequate as a teacher.....(1) (2) (3) (4) (5)
8) Challenging unmotivated students.....(1) (2) (3) (4) (5)
9) Being accepted and respected by professional persons.....(1) (2) (3) (4) (5)
10) Working with class sizes that are too large.....(1) (2) (3) (4) (5)
11) Guiding students toward intellectual and emotional growth....(1) (2) (3) (4) (5)
12) Whether each student is getting what he/she needs.....(1) (2) (3) (4) (5)
13) Getting a favorable evaluation of my teaching.....(1) (2) (3) (4) (5)
14) Poor/inadequate scheduling of physical education classes.....(1) (2) (3) (4) (5)
15) Maintaining the appropriate degree of class control.....(1) (2) (3) (4) (5)

Please express any additional concerns not mentioned above:

Figure 1 -- McBride's Teacher Concerns Questionnaire--Physical Education

were selected to participate in the study through a stratified random procedure (i.e., elementary, middle, and secondary school physical educators), from a computer listing of Alabama physical educators. The computer listing was provided by the Alabama State Department of Education.

Data Analysis

All statistical analyses were performed using SPSS/PC+ 5.0.1. Subjects who had missing values for teaching experience were included in the analyses by replacing those values with the appropriate variable mean. Results from the surveys were first tabulated to determine raw mean scores and standard deviations for each item within the sub-scales, as seen in Table 1.

Reliability estimates of internal consistency for the overall instrument were calculated, as well as for the concerns of SELF, TASK, and IMPACT. A principal components factor analysis was performed on the

Table 1-- * Raw Mean Scores and Standard Deviations for TCQ--PE Items by Concerns Scale (N = 265).

Scale	Item Number	Raw Mean Score	Standard Deviation
Self	13	3.33	1.32
	3	3.01	1.35
	15	3.62	1.33
	7	3.12	1.34
	9	3.30	1.34
Task	1	3.23	1.26
	2	3.22	1.31
	5	3.19	1.37
	14	3.54	1.27
	10	3.98	1.10
Impact	12	3.92	0.91
	11	3.87	1.02
	4	3.85	0.93
	6	3.39	1.17
	8	3.96	0.94

Note * Means and Standard Deviations are rounded to the nearest hundredth of a point.

TCQ—PE data (N = 3 factors extracted) with varimax rotation used to make the factor transformations more interpretable. Such analysis helped explain the variance associated with each loading in the factor matrix. To determine if differences existed among the scales, three scale means were calculated for all subjects using the five items which defined each scale. Then a repeated measures ANOVA was utilized to determine if mean scale scores were statistically significant.

Finally, using scale means which were computed for reliability analyses and for the principal components analysis, mean teaching experience levels were obtained for physical educators who emerged strongest in each given stage of development. A ONEWAY ANOVA command for "experience by stage," with a Tukey follow-up, was used to determine if statistically significant differences were evident for experience levels at each stage of development.

Results

Reliability of TCQ—PE

Reliability coefficients are shown in Table 2, and compared to those reported by

Table 2-- Alpha Internal Consistency Reliabilities for the Overall Questionnaire and the Factor Derived Scales of the Teacher Concerns Questionnaire--Physical Education (TCQ--PE), Compared to Those of McBride (1993).

	Current Study		
Factor Derived Scales	Item Numbers	Alpha Reliabilities	McBride (1993)
SELF	3, 7, 9, 13, 15	0.87	0.93
TASK	1, 2, 5, 10, 14	0.79	0.94
IMPACT	4, 6, 8, 11, 12	0.85	0.89
Overall	1 through 15	0.89	0.94

McBride's (1993) pilot-test of the TCQ—PE. Although the present reliability coefficients were lower than those found by McBride (1993), the current reliabilities were still respectable.

Factor Analysis

As shown in Table 3, factor loadings for the 15 items were consistent with Fuller's SoC model and substantiates that the TCQ—PE is both reliable and valid for identifying the SoC of physical educators. A shift in concerns can be noted among the teachers. Impact concerns yielded a high Eigenvalue and explained most of the variance.

As demonstrated in the ANOVA summary (see Table 4) the scales proved statistically significant at the $p < .001$ level. Tukey follow-up analysis revealed that IMPACT concerns were greater than TASK concerns, and that TASK concerns were greater than SELF concerns.

As seen in the enclosed Tables, findings in this study are consistent with Fuller's SoC theory. Since the mean experience level was 14.5 years, and more than 71% of the subjects had attained more than 10 years of teaching experience, this sample of teachers were professionally mature (having more concern for student IMPACT than for SELF).

The highest scores extracted were for the IMPACT scale, which seems sensible considering the majority of the physical educators were seasoned veterans in the teaching profession. The first factor (IMPACT) consisted of five items. Items 12, 11, 4, and 8 had the highest mean scores for the IMPACT scale. Excluding item 10 from the TASK scale (which had the highest overall mean) the IMPACT items were strongest. Dealing with large class sizes is a major concern for physical educators (item 10) in Alabama, as can be seen when qualitative feedback is discussed later. Teachers appear to have strong concerns for their students. Physical educators want students to receive needed instruction (item 12). Moreover, they desire to guide students toward a sound emotional and intellectual state of being, as well as being physically sound (item 11). Given that many teachers have overloaded classes, they tend to have a great concern over meeting the needs of diverse students (item 4). Teachers also showed strong concern for assisting unmotivated students to

Table 3--Varimax Factor Loadings for the 15 Items on the TCQ--PE, and Final Results of the Factor Analysis.

	Factor Numbers and Titles		
TCQ Item	1 Impact	2 Self	3 Task
12	.81	---	---
11	.79	---	---
4	.79	---	---
6	.73	---	---
8	.66	---	---
13	---	.80	---
3	---	.76	---
15	---	.76	---
7	---	.70	---
9	---	.65	---
1	---	---	.78
2	---	---	.77
5	---	---	.67
14	---	---	.67
10	---	---	.42
Eigenvalue	6.02	1.81	1.25
% Variance	40.1	12.1	08.4
Cumulative %	40.1	52.1	60.5

Note * Eigenvalues are rounded to the nearest hundredth of a point.

Table 4-- Summary of Significant Differences Between TCQ--PE Scales.

ANOVA Summary

Scale	Mean	S.D.	F	TUKEY [a] Results
SELF (S)	3.275	1.046	43.52***	I > T > S
TASK (T)	3.426	.939		
IMPACT (I)	3.796	.800		

Note *** $p < .001$

Note [a] Critical Tukey value = .135

perform and achieve to their fullest (item 8). Finally, participants showed solid concern for diagnosing student learning problems (item 6). This cluster of five items verifies Fuller's IMPACT stage.

The second highest extracted factor, or scale, was that of SELF concerns, explaining 12.1% of the variance in the study. This second factor also loaded as a compatible cluster of items. Item 15 received the highest raw mean score for the scale, demonstrating that physical educators feel that preserving order in the class is a major concern. When considering the aforementioned concerns, it is understandable that teachers would ultimately worry, to some extent, over getting favorable teaching evaluations (item 13). Also receiving a high mean rating was item 9, which related to commanding the respect professionals deserve. Items 7 and 3 also loaded onto this second factor, indicating that respondents had concern for feeling more adequate as teachers and that they want to do well when supervisors are present. But, means for these latter two items were the overall lowest in this study.

The TASK scale, quite suspect until recently (McBride, 1993), loaded clearly as the third and final factor grouping of five items. This factor was not as robust as the former two, but was reliable and accounted for 8.4% of the variance associated with teaching concerns (see Tables 2 and 3). As noted above, item 10 earned the highest overall mean rating for the study. Physical educators simply desire to have class sizes reduced to a number with which they can reasonably work, similar to primary-level classroom teachers. Concern over inferior scheduling of physical education classes was also apparent (item 14). The final three items of this cluster (1, 2, and 5 respectively) had similar raw mean ratings. These items reflected concern about little continuity of the yearly curriculum, poor administrative support of programs, and disparity in grading policies.

In determining the mean experience level of teachers at each stage, the ONEWAY ANOVA indicated that teachers ranged in experience from 1 to 31 years, 1 to 28 years, and 1 to 34 years (for the SELF, TASK, and IMPACT stages, respectively). Differences were significant for mean years of teaching experience, $F(2, 213) = 12.17$, $p < .001$. Subjects having high scale scores for TASK ($N = 48$) and IMPACT ($N = 131$) concerns had respective 14.17 and 15.67 mean years of teaching experience, whereas teachers having stronger scale scores for Self ($N = 37$) concerns had a mean experience level of 9.38 years. To repeat, missing values for teaching experience were replaced with the variable mean (Norusis/SPSS Inc., 1990 p. B-146).

Qualitative Results

Qualitative feedback was manually analyzed and grouped according to emerging themes. The thematic categories were: "behavior, liability, and safety" problems ($N = 26$); "professional and program respect" ($N = 26$); equipment, facilities, and funds ($N = 14$). Other comments were offered by respondents, but given editorial constraints there were too few to warrant reporting.

The "behavior, liability, and safety" category primarily related to "large class sizes" leading to most of the discipline problems that physical educators experience. Additionally, teachers credited overloaded classes for their concern about the liability and safety associated with large class-sizes. Fifty

percent of the participants indicated in their demographics that they teach more than 40 students per "PE class", with an additional 31% responding that they have 30 to 39 students in a typical class period. Given the mean rating of item 10, demographic information, and commentary provided by subjects, a major concern of physical educators is overloaded classes.

Teacher input about receiving adequate "professional and program respect" ranged from administrators employing "substitutes" to assist with fitness testing and supervision of large classes, to state legislators deleting "mandated PE requirements" from high school curricula. One teacher captured the essence of many comments by stating that "Parents, other teachers, and administrators have a bad attitude toward physical education." Another middle school teacher noted that "students do not have to pass PE in order to move up to the next grade level, we have to rise up and let our voice be heard in the school and community." Six teachers indicated that providing funds for hiring qualified physical educators (not "PE aides") to reduce the pupil/teacher ratio in physical education classes would be a tremendous help to resolve their concerns.

Twelve participants commented that they are tired of physical education being a "dumping-ground" for secondary students who do not want to take, or cannot be scheduled into, other elective subjects. Ten of these teachers were at the elementary level. Each noted concern regarding classroom teacher attitudes that PE is a "break-giver" for the classroom teacher. Additionally, most of the 10 teachers indicated that The Smith Act (Alabama legislation which limits elementary classroom teachers to fewer than 20 students in one period) does nothing to help the physical education setting. One teacher stated that her evaluation form was the same as that used for classroom teachers. She felt that she was receiving unfair formal evaluations, by non-physical educators, due to having 40 or more students each period, whereas classroom teachers have less than 20. Another teacher argued that "most . . . people feel that physical education is a glorified name for recess." Still another expressed concern regarded classroom teacher attitudes that physical education was a means for tiring the students so that they are not so unruly in the classroom.

One middle school teacher mentioned that he had classes with students of wide-ranging ages, and that it is virtually impossible to teach large classes with such diverse skill levels. Another teacher alluded to the fact that at many schools other electives take the place of physical education (e.g., band, ROTC, etc.). These teachers felt that all students should be "required to earn a physical education credit for every year they are in school."

One teacher aptly stated that there is only one thing that can resolve the "respect" problem. She put it this way: "Require legislators, school superintendents, principals, teachers and anyone else with their 'fingers in the law-making pot' to organize, control and actually *teach* physical education. . ."

Although the most-mentioned qualitative theme was labeled as "behavior, liability, and safety," the common thread seemed related to overcrowded classes. Eight elementary teachers, as well as three middle and three secondary teachers, all remarked that there is insufficient space, equipment, or facilities for appropriately conducting class. They also acknowledged a third thematic concern relative to "equipment, facilities, and funding." Several teachers felt that the state of their existing equipment and facilities are "old, substandard, and unsafe", and a legal liability. One elementary teacher observed that his program was "impossible [with] no gym or inside room at all". A middle school teacher stated that:

> Many days surviving is the best we can do. On a rainy day having *90+* fifth grade boys on one half of a gym is a little too

much to ask. With these numbers we are limited as to what to do. Stations are a joke because the boys take the equipment and use it as a weapon. Discipline is not really a problem, it's that we have *so many discipline problems*. . . . We are so crowded that I take my boys out when it's 40 degrees, just to separate them from the other coaches and to get them outside where they have room to blow off steam.

Another teacher added that:

We have five teachers each period trying to teach and even on good-weather days we have space-problems. On bad-weather days *there is one particular period where we have over 360 students in the gym* at one time, with five of us trying to supervise and still provide instruction. And, this is on a court that meets only the minimum specifications for regulation junior high basketball, and has just two rows of bleachers. For that class it is a struggle to just have them sit on the bleachers in a civil manner".

Discussion

Three clusters of items (self, task, and impact) were confirmed in this study. One factor loading (impact) explained 40.1% of the variance. The other factors (self and task) were viably independent units. Variance contributions were 12.1% for the self scale, and 8.4% for the task scale. And, each of the three constellations showed statistically significant differences from one another.

It may be that the weaker task loading was due to involving physical educators from all three school levels. Elementary teachers rarely deal with the same tasks that teachers of the upper two levels do. They are typically in more control of their yearly programs, what they teach, when, and for how long. Additionally, administrators may perceive physical education for the elementary students as more important than for older age-groups. Furthermore, there is no "dumping of students into elementary physical education classes" due to the schedule being "fixed". This could be an element that is widely different for the teaching levels.

Although the qualitative data represents just 21% of the study's respondents, the most common comments related to items that McBride (1993) included in phase 2 of his pilot-test. For instance, he has a statement about "liability in physical education" (item 10). Liability and safety was mentioned by 16 subjects as a concern in the current study. Another example is item 1 of the initial pilot-testing. That item relates to "lack of adequate facilities and/or equipment". In this study 14 participants expressed anxiety over substandard or insufficient equipment and facilities. Still, large class sizes appeared as the dominant concern of subjects in this study. Interestingly, almost twice as many elementary physical educators reported teaching over 50 students per period as secondary teachers.

The results of this study indicate that receiving respect from administrators and the community is a concern for physical educators. Increased attention to the issue of respect, and methods that will ameliorate it, through INSET could help make teaching a more gratifying experience, and improve the teaching/learning environment.

A valid point was made by one teacher expressing discontent over being formally evaluated by administrators using the same instrument as is used for evaluating classroom teachers. Because physical education teaching occurs in a non-typical and unique teaching environment, as compared to typical classroom teaching, it may be unreasonable to judge physical educators using the same evaluation instrumentation as is used for classroom teachers. Physical education classes tend to have larger numbers of students, but the nature of the curriculum is such that teaching/learning is occurring in all three educational domains (i.e., psycho-

motor, cognitive, and affective), and the health/fitness aspects. Physical education is unique in this respect. Moreover, there is the issue of students dressing-in/out and showering. If facilities exist for these practices and teachers schedule the time for it, then instructional time will be cut somewhat. Physical educators must be accountable for their teaching performance. However, if classroom oriented evaluation instruments unrealistically penalize physical educators for how they must conduct their classes, it is unjust. School system administrators should adopt or design physical education-specific evaluation instruments which adequately assess physical education teaching performance.

Conclusions

There is now further evidence that McBride's modification of the TCQ is a reliable and valid instrument (the TCQ—PE) for assessing inservice physical educator concerns about teaching. Though it was beyond the scope of this study, no evidence was observed that the three constellations were progressive stages. The primary intent was to replicate an earlier study (McBride, 1993) and verify the validity and reliability of the instrument itself. A second purpose was to build a foundation for planning topics and content for physical educators professional development regarding their teaching concerns. Although the data are limited, the present study offers a baseline from which school system officials can plan INSET programs for their physical educators.

Inservice teachers have a desire to maintain their readiness for performing well in the work environment. However, only when action is taken to improve that setting can there be true education reform. Thus, information that addresses the concerns identified in this study can now justifiably be given a higher priority (that is, assuming that school systems put effort, money, and time into planning In-Service Education and Training, INSET). Three respondents in this study indicated that their school systems did not offer intra-system INSET opportunities. Teachers as developing professionals need at least some INSET offered by their school system. School systems which do not offer regular INSET programs might consider incorporating at least one opportunity each year to help their employees develop professionally. Moreover, results from this study provide a basis for initiating a system-wide INSET program for physical educators. It also may benefit classroom teachers and administrators to participate in *some* physical education INSET sessions. This could educate them about our profession, and demonstrate that it *is* a *beneficial and legitimate* part of the school program for conventional school students.

Finally, there is a need for continued research into physical education teacher concerns. Concerns may change periodically, depending on interventions made at any given time. I recommend further study into whether the TCQ—PE is valid and reliable for teachers at each singular level of schooling (i.e., elementary, junior high/middle, and secondary). The current study simply sought to assess physical educators *in general.*

While teaching experience has been the main predictor of developmental stages in Fuller's concerns theory, it is possible that other teacher demographics may also significantly explain the variance associated with teachers' concerns. Thus, future study should be given to whether additional variables are significant predictors of physical educators' teaching concerns.

Another issue for future investigation is, to learn more about teaching experience and at what point educators migrate from one SoC into another that is more dominant. This will aid in directing INSET to groups that need specific topics presented in

inservice sessions, according to their level of teaching experience.

References

Boggess, T. E., McBride, R. E., & Griffey, D. C. (1985). The concerns of physical education student teachers: A developmental view. *The Journal of Teaching in Physical Education, 4*, 202-211.

Conkle, M. T. (1994). Analysis of Alabama physical educator teaching concerns, inservice needs, and preferred inservice program features. Unpublished doctoral dissertation, Auburn University.

Eraut, M. (1987). Inservice. In Dunkin, M. J. (Ed.). *The international encyclopedia of teaching and teacher education.* Oxford: Pergamon Press.

Fuller, F. F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal, 6*, 207-226.

Fuller, F. F. (1974). Achieving affective competencies through the teacher concerns self-confrontation model of personalized teacher education. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 090 221)

Fuller, F. F., Bown, O. H., & Peck (1967). Creating climates for growth. (Report No. 0002). Austin: The University of Texas at Austin, Research and Development Center for Teacher Education. (ERIC Document Reproduction Service No. ED 013 989)

Fuller, F. F., Pilgrim, G. H., & Freeland, A. M. (1967). Intensive individualization of teacher preparation. In Taylor, B.L. (Ed.). *Mental health and teacher education, (Forty-sixth Yearbook of the Association for Student Teaching)* (pp. 151-187). Dubuque, IA: William C. Brown.

Fung, L. (1993). Concerns among physical educators with varying years of teaching experience. *Physical Educator*, 50, 8-12.

George, A. A. (1978). Measuring self, task and impact concerns: A manual for use of the teacher concerns questionnaire (Report No. 3067). Austin: The University of Texas at Austin, Research and Development Center for Teacher Education. (ERIC Document Reproduction Service No. ED 175 845)

McBride, R. (1986). A comparative analysis of the experienced vs. the novice teacher of physical education—Fuller's model revisited. Paper presented at the annual meeting of the American Alliance for Health, Physical Education, Recreation and Dance, Cincinnati, OH.

McBride, R. E. (1993). The TCQ—PE: An adaptation of the Teacher Concerns Questionnaire Instrument to a physical education setting. *Journal of Teaching in Physical Education, 12*, 188-196.

McBride, R. E., Boggess, T. E., & Griffey, D. C. (1986). Concerns of inservice teachers as compared with Fuller's Concern Model. *Journal of Teaching in Physical Education, 5*, 149-156.

Merenbloom, E. Y. (1984). Staff development: The key to effective middle level schools. *NASSP Bulletin, 68*(473), 25-33.

Norusis, M. J., & SPSS Incorporated. (1990). *SPSS/PC+ Statistics 4.0 for the*

IBM PC/XT/AT and PS/2. SPSS Incorporated: Chicago, IL.

Oliver, B. (1987). Teacher and school characteristics: Their relationship to the inservice needs of teachers. *Journal of Teaching in Physical Education, 7*, 38-45.

Rutherford, B., & Hall, G. (1990, April). Concerns of teachers: Revisiting the original theory after twenty years. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

Wendt, J. C. (1979). Comparisons of prospective physical educators' work motivation, concerns, and dogmatism during the professional preparation process. Unpublished doctoral dissertation, University of Houston.

Wendt, J. C., & Bain, L. L. (1989). Concerns of preservice and inservice physical educators. *Journal of Teaching in Physical Education, 8*, 177-180.

Wendt, J. C., Bain, L. L., & Jackson, A. S. (1981). Fuller's concerns theory as tested on prospective physical educators. *Journal of Teaching in Physical Education, 1*(1), 66-70.