Student Teachers' Interactions with Students During Middle School Physical Education Game Play

實習教師與學生在體育遊戲活動中的相互作用

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Abstract

Teacher/student interactions are a daily occurrence during a class period. What the teachers say, and how they say it, can affect student learning (Rink, 2002). The purpose of this study was to investigate the types of interactions student teachers had with the students during their middle school physical education game play. The subjects were two male senior physical education majors who were concluding their course work with their student teaching experience. For this study students wore a wireless microphone in order for the researcher to hear the types or interactions they had with their students during class time. It was found that these student teachers generally had positive and general interactions with students. Many of the interactions that were given usually included the word "good" or "nice" in it. It is recommended that student teachers are more specific in their interactions with students during class work.

摘　要

老師與學生的互動作用是在學校內常見的現象。老師所説的和所做的事情都能夠影響學生的學習(Rink,　2002)。這項研究的目的是調查師生之間互動作用的種類,實習教師與學生的體育遊戲活動。本研究以兩位男性體育教師為對象,了解他們與學生的互動行為。學生佩帶一個無線話筒,研究員能聽見所表現的互動行為。結果顯示實習教師與學生一般有正面的互動作用。教師時常給予互動作用的詞語有「好」,這是一種很多的師生互動。

Introduction

The student teaching experience is a time of continued learning for the student teacher (ST). The classes leading up to the actual student teaching experience prepares students in writing lessons plans, managing the classroom and teaching developmentally appropriate activities to students. It is during the student teaching experience that the ST is given control of the class and students, and in so doing, continues the learning process. The student teaching experience can be considered the crowning event of the ST's education. Mitchell and Schwager (1993) found that the student teaching experience has been identified as one of the

most influential components of teacher preparation. It provides an opportunity for student teachers to put into practice what they have learned throughout their classroom courses.

One area of teacher preparation that should be stressed to the ST is interaction with their students during class activities. Interactions can include the following: giving instructions, demonstrations and or directions, answering questions, giving feedback, and giving praise or correction, whether verbal or nonverbal. Teacher interactions with students have been studied by Flanders in the field of education. The Flanders system was taken a step further by John Cheffers and applied in a physical activity setting. The system of observation was numbered categories to objectively code both verbal and non-verbal behaviors for both teacher and students during class activities (Darst, Zakrajsek, & Mancini, 1989).

Much of the literature examining teacher-student interactions has been on teacher feedback. Silverman, Tyson, & Krampitz (1992) investigated teacher feedback in relation to student achievement in physical education. The total feedback given in this study was not found to be related to student achievement, yet, other observations from this study did emphasize the importance of teacher interactions. Based on subjective observation, the researchers suggested that as students practiced in skill related activities, positive feedback could motivate students to continue to practice. This permitted a greater number of total appropriate practice attempts, instead of functioning to directly change skill performance. Further, they contend that when students correctly performed a skill during practice time, positive feedback helped focus students to practice the desired skill.

Another study investigated feedback patterns and perceptions of experienced and inexperienced secondary physical education teachers (Tan, 1996). In this study six dimensions of feedback were observed: a) feedback occurrence, b) content of feedback, c) direction of feedback, d) intent of feedback, e) focus of feedback, and f) type of feedback. The results indicated that experienced teachers gave more positive feedback than inexperienced teachers, and inexperienced teachers gave more negative feedback then experienced teachers. The researcher suggested that the experienced teachers had a wider range of information to help in their teaching, enabling them to give more positive and less negative feedback compared to the inexperienced teachers.

Praise can be another important teacher interaction. van der Mars (1989) looked at the effects of verbal praise on off-task behavior of three-second grade students in physical education classes. The teacher in this study wore an earphone that was attached to a recorder cueing the teacher to give praise to the designated subjects. It was found that the teacher gave on average 1.70 specific and contingent feedback per minute to the three second graders during the study. The results from this study found that verbal praise was effective in reducing off-task behavior of second-grade students in physical education, thus giving the subjects more opportunity to work on the given task at hand.

Yet, Lombardo and Cheffers (1983) investigated teaching behaviors and interaction patterns of experienced elementary physical education teachers over a 20-day period. The results of their study concerning teaching behaviors indicated that empathy/sympathy was almost non-existent, and that most of their interactions with students were lecture and teacher directed. These researchers concluded that the teachers in their study were very direct in their teaching and that very little feedback/interaction was given to students.

There has been limited research about the types of student teacher/student interactions and the frequency of occurrence. For this purpose this study will help add to the body of literature regarding student teacher/student interactions. Consequently, the purpose of this study was to investigate the types of interactions student teachers had with students during their middle school physical education student teaching experience during game play. For this study game play can be defined as an end of a curriculum unit, when the students play on a team in game like situations.

Method

Participants and Setting

Two male senior physical education teaching majors (Teacher A & Teacher B) participated in this study. The participants had completed their education and agreed to participate in this study. The university program the student completed required students to take classes in teaching sport skills, assessment in physical education, methods of teaching physical education and other related classes in physical education. Students in this program also participated in a semester long practicum in the

public schools before their student teaching experience. The student teachers were assured that participation in this study would not affect their final grade for their student teaching experience. The middle schools the participants taught at had a student population of approximately 600 students. The cooperative teachers that worked with the student teachers had 15 (cooperative teacher for student teacher A) and 27 years (cooperative teacher for student teacher B) of teaching in the public school setting. Prior to game play the student teachers taught skills that would be used during game play. During the teaching of skills, the students practiced the skills in a controlled setting and in modified game situations. The university institutional review board (IRB) granted permission to conduct this study, and the physical education teaching majors agreed to voluntarily participate by providing written consent.

Data Collection & Analysis

For this study the student teachers were video taped teaching two lessons. The first lesson occurred shortly after the cooperating teacher had given full control of the classes to the student teachers. This happened during the second week of the student teaching experience. The second videotaped lesson occurred towards the end of the student teaching experience, the 13th week of the student teaching experience. The reason for observing the ST's early in the student teaching experience and then towards the conclusion of the experience was the researchers hoped that by the end of the student teaching experience, the ST's would have more frequent interactions with their students. Every time the student teachers were video taped they were equipped with a wireless microphone. After the lessons were recorded the researchers transcribed the video taped lessons. Both student teachers that were observed for this study taught the same students (class periods) in their first and second observed lessons. Lessons were from game play in their classes. Using game play would be a good indication to the researchers if the ST's were having interactions with students. Typically, game play does not require too much interaction from the teacher. Thus, giving a good sense if the ST's were having any interactions with their students. Because of the qualitative nature of this study, triangulation of the data was needed. To ensure triangulation for this study, additional qualitative data were gathered, 1) the researchers observed other teaching episodes of the student teachers in person, 2) the researchers conducted informal interviews with the student teachers, and 3) field notes were taken by the researchers during student teaching episodes for the

purpose of feedback to the student teachers. After the teaching episodes were recorded, the researchers transcribed the lessons, and read and re-read the data until common themes became evident (O'Sullivan & Tsangaridou, 1992; Mueller & Skamp, 2003). A qualitative thematic content analysis was utilized to determine relevant interaction patterns between the student teachers and their students. Sarvela & McDermott (1993) have defined qualitative thematic content analysis as "any technique for making inferences by objectively and systematically identifying specified characteristics of messages." Simply stated, content analysis is a strategy for studying the content of messages.

Results

The researchers read and re-read the transcribed interactions of Teacher A & Teacher B to identify key phrases to support continuous and relevant themes. Phrases were then accumulated in a list format and then particular ones were chosen from this list to support the major teacher/student interaction themes (Table 1). The following prominent themes came from the transcribed student teacher lessons: 1) Group and Individual Interactions, 2) Positive and Corrective Interactions and 3) General and Specific Interactions.

Group and Individual Interactions

Rink (2002) has defined group interaction as being "directed to all learners in the class or a group of learners in the class" (p. 170). And individual interaction is directed "to one individual in a private way" (p. 170). When looking at the interactions of Teacher A and Teacher B, both had more group interactions in their first lesson than individual interactions. Conversely, the second lesson for both Teacher A and Teacher B had more individual interaction than group interactions. Some examples of group and individual interactions were "Good job, ladies", and "Good hit, Jodie", respectively. (Table 1). For both Teacher A and Teacher B the group interactions usually dealt with making a call on a certain play, settling a dispute, or congratulating a team on a successful play that was executed properly. The individual student teacher interactions were in relation to a single successful execution of a skill or encouraging a student.

Positive and Corrective Interactions

A positive or corrective interaction can greatly impact a student's learning in physical education (Pangrazi, 2004). Siedentop & Tannehill (2000) have defined positive interactions as "a positive response about what was done appropriately." Rink (2002) has defined a corrective interaction as giving the "learner information on what to do or what not to do in future performances." When analyzing Teacher A and Teacher B, positive and corrective interaction phrases such as "Nice hit", "Good D", "Feet should be shoulder width apart", and "Bring it (the ball) all the way back" were used. The researchers observed that when either a positive or corrective interaction took place, the tone of the student teacher's voice was upbeat and reassuring. Pangrazi (2004) feels that positive interactions help create a positive atmosphere for the students in the gymnasium or out on the playing field. Thus, students are more willing to accept a challenge and to risk error or failure in their attempts. Siedentop & Tannehill (2000) have suggested that teachers should use a 4:1 ratio of positive to corrective interactions with their students.

General and Specific Interactions

These two types of interactions have been the topic of much research in the pedagogy field. It is has been recommended that when having interactions with students, teachers should use specific feedback for the purpose of assisting the student in learning a skill (Rink, 2002). Of all the categories of interactions that have been analyzed in this study, general and specific interactions were used most by both Teacher A and Teacher B. The most notable trend that was observed by the researchers was the use of the word "good" and "nice" in their interactions with students (Table 1). For example, "good job", "good serve", "nice hustle", and "nice job" were commonly used phrases by both Teacher A and Teacher B. These types of interactions appear to reinforce student success, although it isn't effective when helping students learn a skill (Rink, 2002).

After analyzing the data, the researchers had two other observations. First, the number of interactions that Teacher A and Teacher B had in their lessons was observed. These interactions were coded by listing the student teachers interactions with the students. Of the four lessons observed, the student teachers averaged no more than two interactions per minute (Table 2). Teacher A averaged four interactions per minute in his second lesson. Teacher B averaged a little over two interactions per minute for both lessons. Second, both Teacher A and Teacher B very seldom addressed their students by either their first or last name. In both of Teacher A's lessons he used a students' name a total of six times. For both of Teacher B lessons he used students' name a total of 16 times. When both Teacher A and Teacher B used the student's name, the majority of the time the tone of their voice was stern for the purpose of keeping students on task and out of trouble.

Conclusions

Based on the data, Teacher A and Teacher B interactions were positive and general in nature, with the words "good" and "nice" being a big part of their interactions with students. This is similar to Tan's (1996) findings that because of a lack of teaching experience, novice teachers gave general feedback to their students, compared to more experienced teachers. Both Teacher A and Teacher B had more individual interactions with their students in their second lesson compared to their first lessons. During an informal interview with Teacher A, he stated that the reason he had more individual interactions in his second lesson was because "I had gotten to know my students better and knew their personal tendencies. And because of this I felt more comfortable in talking with them." It makes complete sense that both Teacher A and Teacher B became more comfortable with their students, thus eliciting more individual interactions in their second lessons.

As mentioned previously, Teacher A and Teacher B would seldom address their students by their first names. The literature has recommended that when teachers have interactions with students, using the student's name is beneficial to the student's learning (Rink, 2002). It also indicates to the student that the teacher is interested in them and cares about their learning the skill. If this was to take place, there is a greater possibility of students feeling more comfortable during class, with the hope of greater student learning.

To conclude, the findings reinforce the importance the teacher, in this case the student teacher, has when they are specific in their interactions with their students. Much can be learned from the observation of student teachers' interactions with students during the student

teaching experience. As the data has indicated, student teachers should be mindful of having more specific and positive interactions with their students during their student teaching experience. With this information, PETE faculty needs to stress to their students the importance of specific and positive interactions in classes leading up to the student teaching experience.

Although there are many variables to take into consideration for the student teacher during their student teaching experience, these conclusions for PETE faculty should better prepare their students for their student teaching experience. These conclusions can help student teachers lay a foundation in their teaching that can benefit students for many years and make their student teaching experience the crowning event of their education.

Table 1. Teacher Interactions Themes.

Classification	Teacher Interactions
Group	"Report your scores to me" "Listen up" "Everybody line up on the green line" "Good Job ladies" "Guys, stand behind the red line"
Individual	"Good hit, Jodie!" "Good catch, there you go" "Put your feet next to hers" Stay in the batters box"
Positive	"Keep it up" "Nice hit" "Good D!" "Nice Hustle!" "Good Stop, Jerry"
Corrective	"Got to hold the ball to kick off" "Got to get a good snap" "Feet shoulder width apart" "Bring it (the ball) all the way back"
General	"Good Job" "Nice Hustle" "Good try"
Specific	"Matt, It has to be overhand throw" "Be in the box when hitting"

Table 2. Frequency of Teacher Interactions During Class Time.

Teacher A	Total # of Interactions	Interactions Per Minute
1st Lesson 33 minutes in length	60	1.81
2nd Lesson 27 minutes in length	113	4.18

Teacher B	Total # of Interactions	Interactions Per Minute
1st Lesson 36 minutes in length	96	2.66
2nd Lesson 35 minutes in length	85	2.42

References

Darst, P.W., Zakrajsek, D.B., & Mancini, V.H. (1989). *Analyzing Physical Education and Sport Instruction (2ⁿᵈ ed.)*. Champaign, Il. Human Kinetics.

Lombardo, B., & Cheffers, J. (1983). Variability in teaching behavior and interaction in the gym. *Journal of Teaching in Physical Education, 2,* 38-48.

Mitchell, M.F., & Schwager, S. (1993). Improving the student teaching experience: Looking to the research for guidance. *The Physical Educator, 50,* 31-38.

Mueller, A., & Skamp, K. (2003). Teacher candidate talk: Listen to the unsteady beat of learning to teach. *Journal of Teacher Education, 54 (5),* 428-440.

O'Sullivan, M,. & Tsangaridou, N. (1992). What undergraduate physical education majors learn during a field experience. *Research Quarterly for Exercise and Sport, 63 (4),* 381-392.

Pangrazi, R.P. (2004). *Dynamic Physical Education for Elementary School Children* (14ᵗʰ ed.). Boston, MA. Allyn and Bacon.

Rink, J. (2002). *Teaching Physical Education for Learning*. St. Louis, Mo. Mosby.

Sarvela, P.D., & McDermott, R.J. (1993). *Health education evaluation and measurement: A practitioner's perspective*. Madison, WI: WCB Brown & Benchmark.

Siedentop, D., & Tannehill, D. (2000). *Developing Teaching Skills in Physical Education (4ᵗʰ ed.)*. Mountain View, CA: Mayfield.

Silverman, S., Tyson, L., & Krampitz, J. (1992). Teacher feedback and achievement in physical education: Interaction with student practice. *Teaching & Teacher Education, 8,* 333-344.

Tan, S.K.S. (1996). Differences between experienced and inexperienced physical education teachers' augmented feedback and interactive teaching decisions. *Journal of Teaching in Physical Education, 15,* 151-170.

van der Mars, H. (1989). Effects of specific verbal praise on off-task behavior of second-grade students in physical education. *Journal of Teaching in Physical Education, 8,* 162-169.

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