A Study of Teaching Behaviors and Learning Activities in Physical Education Class Settings Taught by Specialist Teachers, In-service Teachers, and Pre-service Teachers

Howard Z. Zeng, Michael Hipscher, and Raymond W. Leung

Brooklyn College of the City University of New York; U.S.A.

In order to be accredited, physical education teacher education (PETE) programs must fulfill the ten standards established by the National Association for Sport and Physical Education (NASPE). To meet the standards, a PETE program needs to have the cooperation of the following three levels of instructors: Specialist Teachers (STs), Inservice Teachers (ITs), and Preservice Teachers (PTs). The STs are those who teach at colleges or universities, possess advanced degrees with full/associate/assistant professor titles, and teach theoretical and skill courses. They participate in the academic activities of the PETE program; for instance, they serve as academic advisors and instructors of the PTs. The ITs are those who possess teacher certificates, bachelor or higher degrees, and currently teach physical education (PE) classes at middle/high schools. They also participate in the academic activities; for example, they serve to guide PTs as cooperating teachers. The PTs are college students who are currently studying in a PETE program. They intend to become PE teachers at K-12 school levels. They must complete the student teaching requirements at primary and secondary school class settings in order to graduate from colleges or universities. As there is a close relationship among these three levels of educators, the following two questions are raised: (a) what are the teaching behaviors (TB) of these three levels of teachers? And (b) Are there any differences in TB among these three levels of educators? To the knowledge of the investigators, no studies have been conducted to examine these matters. Generally, people assumed that college professors are the skillful teachers and serve as the role models of the PTs; the ITs possess adequate knowledge and skill to teach in the gyms, and the PTs learn and develop essential knowledge and skill from the STs and ITs. Hence, it was the objective of the study to identify and compare the features and differences in TB and learning activities (LA) in PE class settings taught by the teachers of the three levels.

Participants were 45 PE teachers (15 teachers per level) and their students from an urban university and two high schools located in the East Coast of the United States. A total of 90 lessons (two lessons per teacher) taught by the teachers of the three levels were videotaped and coded using the Direct Instruction Behavior Analysis (DIBA) system. The DIBA is a systematic observation instrument which included 13 behavioral categories, and the results expressed as mean rate per minute (RPM) scores were as follows: Informing, STs (2.617 ± 1.014), ITs (3.349 ± 2.271), PTs (3.613 ± .761); Observing, STs (1.149 ± 1.126), ITs (1.129 ± .810), PTs (1.124 ± .722); Structuring, STs (2.344 ± 1.504), ITs (2.479 ± 1.426), PTs (2.007 ± .948); Questioning, STs (.529 ± .362), ITs (.365 ± .807), PTs (.349 ± .234); Praise/Encouragement, STs (.248 ± .146), ITs (.138 ± .245), PTs (.525 ± .402); Feedback, STs (.946 ± .601); ITs (.693 ± .537); Feedback, STs (.274 ± .204); Controlling, STs (.000 ± .000), ITs (.010 ± .027), PTs (.091 ± .156); None of the Above, STs (.362 ± .294), ITs (1.284 ± 1.366), PTs (.116 ± .138); Motor-Engaged, STs (3.596 ± 1.758), ITs (5.215 ± 2.612), PTs (4.348 ± .1.339); Cognitive-Engaged, STs (2.755 ± 1.084), ITs (1.880 ± 1.109), PTs (2.432 ± .710); Preparing, STs (.205 ± .205), ITs (.278 ± .249), PTs (.304 ± .217); Gets Equipment/Relocation, STs (.719 ± .311), ITs (.665 ± .469), PTs (.688 ± .359); and Waiting for a Turn, STs (.383 ± .304), ITs (.963 ± .915), PTs (.873 ± .929). The one-way independent group ANOVA revealed that the mean RPM scores were significantly (p < .05) different among the participants of the three levels with respect to the following eight variables: Informing, F = 3.541, PTs > ITs > STs; Praise/Encouragement, F = 14.422, PTs > STs > ITs; Feedback, F = 15.036, STs > ITs > PTs; Controlling, F = 8.997, PTs > ITs > STs; None of the Above, F = 17.313, ITs > STs > PTs; Motor-Engaged, F = 5.043, ITs > PTs > STs; Cognitive-Engaged, F = 6.049, STs > PTs > ITs; and Waiting for a Turn, F = 4.890, ITs > PTs > STs. No significant (p > .05) differences were found in the mean RPM scores on the following five variables among the participants: Observing, Structuring, Questioning, Preparing, and Get Equipment/Relocation.

Based upon the “Comments/Notes” from reviewing the 90 lessons, the following findings and implications were observed. The STs scored higher on Cognitive-Engaged and Feedback than the ITs and PTs, thus reflecting that the STs possessed better content knowledge and capability in stimulating students’ cognitive learning activity as well as providing more valuable feedback for students. The foundation for performing better in these two variables was teaching experience. The ITs scored higher on Motor-Engaged and Wait for a Turn than the STs and PTs. This finding demonstrated that the ITs appeared to be the practitioners who knew how to maximize students’ activity learning time.
They had the skills to motivate their students to participate in the activities they offered. Moreover, The ITs had higher Wait for a Turn scores. This implied that the ‘class oversize’ issue in urban high school settings was evident and the ITs were unable to overcome this problem.

The PTs scored higher on Informing, Praise/Encouragement, and Controlling than the STs and ITs. This finding confirmed that the PTs tended to be the “hand-on” educators who would demonstrate the skills and techniques by themselves. Most of the PTs would like to talk, praise, and encourage their students. They taught with enthusiasm but they might not be proficient in delivering appropriate quantities of demonstration/explanation and praise/encouragement to students, thus possibly explaining the higher scores on Informing, Praise, and Encouragement obtained by the PTs. However, when the Informing, Praise, and Encouragement behaviors did not work well, the PTs would turn to use Controlling behaviors.

The reasons for the similar occurrence frequencies on Questioning, Observing, Structuring, Preparing, and Get Equipment/Relocation might be due to the fact that Questioning was the favorite teaching behavior used by most of the teachers in this study. Questioning was used for motivation and checking students’ understanding. Similar occurrence frequencies on Questioning behaviors reflected that PE classes had common instructional patterns. It also implied that the participants tended to use a certain amount of Questioning teaching behaviors to motivate, check, and remind the learning activities of students no matter they were a specialist, inservice, or preservice teacher.

Observation is an important instructional skill in teaching PE. By observing what the students are doing in a PE setting, the teacher know what is going on in the class and she/he could decide when would be appropriate to provide feedback and instructions to students. Participants from the three levels utilized Observing behaviors in a similar manner, thereby demonstrating that these instructors shared similar instructional patterns. In addition, Preparing and Get Equipment/Relocation activities were dependent on how a teacher managed and organized a lesson, and were related to the ways how she/he utilized the Structuring teaching behaviors. Reasons for the similar scores among these three groups might be attributed to the current frame of the PETE program; that is, PTs learn form STs and ITs, ITs learn form STs and reality, and STs learn form educational theoretic and experiences. In other words, when teaching PE activity/skill classes, individuals have formed certain common patterns to follow regardless of the levels of instructors.

In conclusion, the STs appear to use more Feedback TB than the ITs and PTs; and the students taught by the STs tend to engage more cognitive activities than the students taught by the ITs and PTs. The STs appeared to utilize more Informing, Praise/Encouragement, and Controlling TB than the ITs and STs. Students taught by the ITs tend to engage more motor activities and have more Waiting for a Turn activities than students taught by the STs and PTs. The ITs appear to utilize more None of the Above behaviors than the STs and PTs. The participants of the three levels tend to use Observing, Structuring, and Questioning TB in a similar manner. The results of this study might serve as a guide for collegiate, high school, and student teachers to modify and improve their instructions. Furthermore, the present findings give rise to the following recommendations and implications: (a) systematic observation technique should become a part of the curriculum of the PETE programs; (b) the 10 beginning teacher standards from the NASPE (2003) should be shared with the ITs; (c) students’ activity learning time-physical education (ALT-PE) should be required as a criterion for assessing whether a lesson is successful in teaching PE; and (d) a variety of teaching strategies should be taught and reinforced in the PETE programs.

Selected References


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