The Immediate Effects of Various Task Presentation Types on Middle School Students’ Skill Learning

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The purpose of this study was to determine the effects of five different types of task presentation upon students’ initial attempts to perform the overarm lacrosse throw. The dependent variables were students’ scores on measures of ① accuracy in throwing the lacrosse ball and ② use of appropriate movement process characteristics (i.e., form or technique). 120 subjects (60 from 7th grade and 60 from 8th grade, respectively) participated in this study. 60 subjects (30 boys and 30 girls) in each grade were randomly assigned to one of five experimental conditions (i.e., 24 subjects per treatment group with equal numbers of boys and girls, 7th and 8th graders). Five different videotapes explaining teaching presentation for each experimental conditions of task presentation were made. Results based upon the analyses of students’ throwing accuracy and movement process characteristics indicated that the experimental condition of a verbal explanation with full demonstrations, summary cues, and verbal/visual rehearsal resulted in the best student performance on each of the two dependent measures. The implications obtained from this study for physical education in terms of research and practice as well.

key words: Task Presentation, Demonstration, Cues, Rehearsal, Teacher Effectiveness, Student Achievement

Introduction

From an historical perspective, the nature of teachers’ verbal presentations in the classroom has been a topic of considerable interest among educational researchers (Chesebro & McCroskey, 2001; Myers & Knox, 2001; Rosenshine & Stevens, 1986). It is intuitively sensible that the most effective teachers are those who are good at making presentations to students that emphasize what is important about the academic content and what is expected to be learned (Brophy & Good, 1986; McClain, 2002).

Much of the early classroom research on teacher presentations has focused on clarity and has generally been quite fruitful in identifying the characteristics of effective presentations (Cruickshank & Kennedy, 1986; Rosenshine & Stevens, 1986). Cumulative results have showed both the presence and absence of various aspects or dimensions of communication. Classroom research has shown that there are three effective or clear presentations. They are to; ① get students’ attention, ② demonstrate the skill or process to be performed, and ③ summarize important points to be remembered (Brophy & Good, 1986; Rosenshine & Stevens, 1986).

The proceeding discussion suggests that much has been learned about the clarity and effectiveness of teachers’ classroom presentations from a general academic orientation. More recent
classroom investigations have identified, however, the need for continuing explorations of teacher presentations both across and within different subjects (Eid, 1997; Havita, 1998; McClain, 2002; Sindelinger & McCroskey, 1997; Werts, Caldwell, & Wolery, 2003). Little is known about how effective presentations in mathematics, for example, differ from those in English literature. Similarly, little is known about how effective presentations in basic mathematics differ from those in advanced mathematics. Additional work is thus needed to focus on teachers’ presentations in particular academic subjects.

In physical education the most common type of research on teacher presentation has been the presentation of movement tasks (Rink, 2003). The term task refers to what students are expected to do motorially. Motor task presentation has historically been investigated from two different orientations - teacher effectiveness research and motor learning research.

Studies of task presentations based on a teacher effectiveness perspective have been somewhat limited. Early research yielded inconclusive results regarding the relationships between teachers’ movement task presentations and students’ attempts at performing motor skill tasks (Phillips & Carlisle, 1983; Yerg & Twardy, 1982). For example, an early teacher effectiveness study (Phillips & Carlisle, 1983; Yerg & Twardy, 1982) revealed, among other things, that more effective teachers spent more time in task presentation. However, Rink and Werner (1987) suggested that task presentation may play a key role determining the dimensions of effective teaching, developing, and using an observational tool to examine task presentation - Qualitative Measure of Task Presentation System (QMTPS). They found that inaccurate information and general global statements presented to the learner in the task presentation resulted in inappropriate student responses. Later work has suggested that the teacher’s selection of an appropriate task and the characteristics of task presentation can be important avenues for understanding instructional effectiveness (Graham, Hussey, Taylor, & Werner, 1993; Gustart, Kelly, & Rink, 1997; Rink & Werner, 1987).

Motor learning research on task presentation has been somewhat more informative. Magill (2000) indicated that student’s level of cognitive effort influences the quality of practice. The nature and manner in which information is communicated to students can facilitate the development of accurate motor plans (Rink, 1998). It has been suggested that the information provided by teacher must be delivered clearly so that students can have clear idea to design an accurate motor plan for a movement response. Other studies also have indicated that the student’s recall of process characteristics of simple motor skills is dependent on the quality of visual demonstrations, rehearsal strategies, and use of appropriate cues, among other things (Freedman, 2000; German, 2002; McCullagh, Stiehl, & Weiss, 1990; Weiss, Ebbeck, & Rose, 1992). For example, McCullagh et. al. (1990) extended previous research which has determined the effects of modeling on the qualitative and quantitative aspects of performance. The results of study revealed that older children significantly performed better than younger children on both qualitative and quantitative performance. No significant verbal rehearsal and model type effects were found. Weiss et. al. (1992) revealed that younger children performed better and got higher sequence scores in the model plus and verbal rehearsal group than both model only and rehearsal only group. Their study concluded that performance and learning will be facilitated among young children when a verbal model and verbal rehearsal are provided.