Effects of teaching cues on student learning by raising self awareness with peer interaction

Elizabeth S. Merrigan

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Cadets at The United States Military Academy at West Point spend 47 months learning in the classroom, athletic fields and military field training. Learning and development is critical to their progress in becoming an Army officer with a Bachelors of Science degree. Understanding how to most clearly and efficiently communicate to cadets is important for instructors to understand. The project attempted to increase instructor clarity by using specific cues, increase the students’ interaction with the material and encourage active listening skills. The project assessed the use of cues by asking students to give feedback to the instructor on cards about what they heard. Student interaction with cues was assessed by instructing students to use cues a certain number of times per class session as well as review cue cards before and after class.

Research in physical education consistently shows that effective teachers explain a skill using select cues; they give a demonstration and encourage students to verbally or visually rehearse the pattern (Rink, 1994). Cues are concise phrases that direct a student’s attention to relevant task. The cue should prompt key movement patterns of a motor skill (Landin, 1994).

Teacher clarity was one of the first and most consistent variables identified by researchers regarding teacher effectiveness. Task presentation involves the teacher communicating to the student what they are to do. More effective teachers were clear in their task presentation, used a full demonstration and delivered a cue at an appropriate time. Rink developed a Qualitative Measures of Teaching Performance Scale (QMTPS) in order to describe teacher performance. The scale includes measures on the type of task, the presentation of the
task, the student response to the focus of the task and the teacher providing specific congruent feedback. Rink found that the total score of the QMTPS was most important for teacher effectiveness rather than a high score in one of the four measured areas. The relationship between student learning and QMTPS score was found as high in a follow up study to the QMTPS study suggesting that if a teacher scores high in the four QMTPS measures then his/her students learning increases (Gusthart, 1994).

Research indicates that some tasks need the use of cues and some tasks do not. Rink, French, Werner, Lynn and Mays, (1992) found that when a learner does not adapt their performance to the situation then the cue is necessary. The same study indicated that students learn what the teacher taught even when the information is inaccurate or incorrect. Lastly, increasing the number of demonstrations did not positively impact the learning of the students. It is possible that during practice, students are demonstrating for each other and those have a similar effect as a teacher demonstration.

Research shows the concept that active listening increases one’s ability for learning. Active listening may be defined in a myriad of ways (Prince, 2004). Active listening can include any method that engages students in the learning process. It asks students to think about what they are doing. Active listening is often contrasted with lecture teaching when students are passively receiving information.

**Description**

The desired outcome of the project was to increase instructor clarity by using specific cues, increase the students’ interaction with the material and encourage active listening skills. This project examined the words or cues that students hear their instructors give and measured
Students recorded what they heard from instructors for learning cues each day. Students wrote down the most important skill component cue that they learn at the end of each lesson on a 3 x 5 card packet. Instructors review the cues on the cards and had a conversation with students before or after class about cues that are not specific enough or ask them how they are doing on reaching their cue goal. The goal was to focus student instructor conversations on the specific improvement area for that student.

A specific cue given by an instructor, such as “feet to the ball”, might be written down by as student “use your legs”. The instructor would talk to the student to clarify the cue and specific movement of the body to help that student better understand the exact area that needs improvement.

The cards were on a bulletin board in the gym for each lesson in order for the students to review each card at the start of the next lesson. Students were also told during the lesson to share their cue with their partner, and the partner made corrections based on the cue’s goal and actual performance. At the end of the course, students were asked to describe how they learned in the course survey. The survey included questions about how the students learned during the course. A full version of the survey is included at the conclusion of this paper.

**Results**

Students reported during the end of course survey that they understood what they were supposed to do to execute the skills. One student wrote, “my note cards helped me remember what I need to work on”. Another student wrote “I saw the instructor do it, I heard what I was supposed to do, but telling someone else to do it made it click.” In other words, cognitively they
knew what they had to do. Many students reported enjoying the course and working with their classmates. The requirement to know what cue your partner was working on forced students to coach or provide feedback to one another. Students reported enjoying their interaction with other students.

On average, the instructors spoke to each student in the class twice about the cues that they wrote down compared to the cue the instructor meant to say or did say in class. Those interactions lasted from one to four minutes. Typically the instructor asked the student to further describe the cue with more words or physical example. Once the instructor knew which cue the student was writing about the instructor clarified the cue words the student should use in the future.

Conclusions

Student interaction with specific cues increased during the duration of the course. First and foremost, instructors were simply more aware of the words they used to describe volleyball skills. Through my own reflection, I realized when I used one word compared to another when instructing students. I was more focused on my specific language. Secondly, students began using the cues and terms that the instructors used. The quality of the conversations was also improved because students were providing feedback on their cards. The instructor could see on the note card what the student heard based on what he/she wrote and offer more instruction if the cue was not what the instructor intended.

Not only did the cue words fuel the actions of the students and tell the instructors what they heard but when the students wrote them down this served as feedback to the instructors. Instructors could modify the lesson plan and how they gave instructor based on the cues that students used most effectively. This was a surprise conclusion that was not originally intended
with the project. I suspect with a system in place, this feedback mechanism could continually improve the course.

The use of cues decreased the variety in dialog. Each instructor used similar cues so students heard the corrections the same way. There was perhaps a decrease in confusion between the variations in cues once instructor focused on a commonality of language. Not only was I using more specific language but my co-instructor was using that language too.

In the future for this course, cue words can continue to be codified so the instruction to students is uniform. When an instructor teaches using one cue, the correction to the student later in the class hour is made using the same cue word. Those cue words most helpful could be consolidated in the lesson plans for further clarity of instruction. The use of video could enhance instructor reflection to determine if the proper language was used to describe the motor movement. Through review of video, each instructor could gain valuable feedback about their clarity.

Student could also use video to enhance their understanding of cue words. Part of the course could include a video with a specific skill and students write feedback or comments about the performance on the video. For example, “the demonstrator kept her feet shoulder width apart”. The cue from class is feet shoulder width. Instructors have another way to evaluate student understanding and use cue words with this exercise.

Simply thinking about the words I was saying offered a level of focus for my instruction. In physical fitness classes it is so important to have activity and reduce the amount of lecture time. In order to do that, choice words that have the correct impact on movement are important. I think through continued focus on proper cues I can continue to increase my clarity of instruction and increase activity time for students.
References


PE 266 Course End Survey

What is your sustain for PE 266?

What is your improve for PE 266?

Describe what working with classmates during PE 266 did for you?