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Reciprocal Style of Teaching: A Positive Motivational Climate

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Introduction

The reciprocal style of teaching, also known as Teaching Style C, is a commonly used peer-tutoring structure in physical education. Physical educators from around the world report using style C in their instructional practices as extensively as other more teacher-centered styles like the practice and command styles of teaching (Cothran, Kulinna, & Ward, 2005).

Within this teaching style, students are paired to form a dyad; while one student performs (the doer) the other (the observer) observes and provides skill feedback to the doer. A task sheet or wall chart, provided by the teacher, is employed by the observer to help give accurate feedback to the doer. The students assume the roles of doer and observer during each Style C episode. When the teacher is present, a triad is formed. The teacher is responsible for observing the actions of both the doer and observer, and interacting with the observer.

What does research tell us about the Reciprocal Style of Teaching? Firstly, skill performance has been shown to improve in different-aged learners across various motor tasks when practicing under the conditions of style C (Ernst & Byra, 1998; Goldberger & Gerney, 1986; Mosston & Ashworth, 2002; Pellett & Harrison, 1995). Secondly, when in the role of observer, students have shown that they do provide feedback to the doer, it is accurate, and it is perceived as helpful (Cox, 1986; Byra & Marks, 1993; Ernst & Byra, 1998). Thirdly, practicing under conditions of style C helps students learn critical skill cues (Ernst & Byra, 1998). These are things that we know about style C.

What have we not researched about? Well, one thing that we have not examined is the perceptions of learners taught in Style C? What makes Style C interesting and enjoyable or boring and not enjoyable to the students? How do students feel about giving feedback to and receiving feedback from a peer? How do students like to assess one another's performance? How students feel about learning in a particular teaching style is important to explore because it can inform us about factors that motivate students to learn.

The purpose of this study was to examine student perceptions specific to engagement in reciprocal style teaching episodes.

Methods

Participants

A total of 15 fifth-graders, 7 girls and 8 boys, from one class participated in this study. The students were between 11 and 12 years of age. Twelve of the students were Caucasians and three were Hispanic Americans. One male teacher with 20 years of teaching experience taught all of the lessons. This teacher had employed Spectrum Teaching Styles for more than 10 years of his career.

This study was conducted within the student's regularly scheduled physical education program which included two 30-minute lessons per week. All lessons were delivered in the school gymnasium. Lesson content included juggling, volleyball, and soccer. All of the students in the class received one or two Style C teaching episodes each

week for 15 weeks. The students experienced a total of 20 reciprocal style episodes during the study. The length of each Style C episode ranged between 10 and 20 minutes.

Data Sources

Data were collected from two sources, individual interviews and a questionnaire. The participants were interviewed at the end of the 7th and 15th weeks. The questionnaire was verbally administered at the beginning of each interview.

The participants answered three questions at the beginning of each interview using the same 5-point likert-scale for each question. The questions were:

1. How much did you enjoy receiving feedback from your partner?
2. How much did you enjoy giving feedback to your partner?
3. How much of a help were you to your partner when giving feedback?

After the participants circled their answers on the form, the interviewer continued each interview session with additional questions. Firstly, the participants were asked to explain why they circled the number they did for each of the questionnaire items. Then, they were asked to discuss the “best” and “worst” things about being the doer and about being the observer. Finally, they were asked to share other things about their experiences in the style C episodes not previously discussed. Each interview lasted 5 to 15 minutes. All interviews were audio-taped, including the responses the participants gave to each likert-scale question. The interviews were then transcribed for analysis.

Data Analysis

Descriptive statistics were computed for the three likert-scale questionnaire questions while the interviews were subjected to qualitative analysis. The transcribed interviews were analyzed using constant comparison (Patton, 2002).

Teaching Style Verification

It is critical to systematically verify style implementation. Ten of the style C episodes were videotaped. A style analysis checklist (see Appendix A; Sherman, 1982) designed for the reciprocal style of teaching was used to ascertain the fidelity between the teacher’s instructional behaviors and the style specific behaviors. Two trained coders coded each of the 10 episodes and observer agreement scores were calculated. Intra-observer percentage of agreement was found to be 96% while inter-observer percentage of agreement was found to be 92%.

Results

Questionnaire

The participants, girls and boys, perceived giving feedback, receiving feedback, and helping their partner when giving feedback quite positively after the 7th week and 15th week. The mean scores for the 7th and 15th week interviews were all very close to 4.0 on the 5-point scale.

Table 1
Mean and Standard Deviation Scores for Receiving Feedback from a Partner

Gender	7 th Week		15 th Week		Combined	
	M	SD	M	SD	M	SD
Male	4.13	0.83	4.16	0.98	4.14	0.86
Female	4.16	0.41	3.71	1.11	3.92	0.86
Combined	4.14	0.66	3.92	1.04	4.03	0.85

Table 2
Mean and Standard Deviation Scores for Giving Feedback to a Partner

Gender	7 th Week		15 th Week		Combined	
	M	SD	M	SD	M	SD
Male	4.00	1.31	4.33	1.03	4.14	1.17
Female	4.33	0.82	3.71	1.25	3.84	1.07
Combined	4.14	1.10	3.85	1.14	4.00	1.11

Table 3
Mean and Standard Deviation Scores for Perception of Help to a Partner

Gender	7 th Week		15 th Week		Combined	
	M	SD	M	SD	M	SD
Male	4.13	0.99	4.00	0.89	4.07	0.92
Female	3.83	1.17	4.00	0.82	3.92	0.95
Combined	4.00	1.04	4.00	0.82	4.00	0.92

Interviews

Theme 1.

Four themes emerged from the analysis of the interviews. The most prevalent theme, as determined by the sheer number of statements made towards this theme, was *Feedback Helps You Learn*. The following statements from the fifth-graders' interviews exemplify this theme:

"I enjoyed it a lot because when I get feedback I can learn from my mistakes and get better at it."

"I like getting feedback so I know what I am doing wrong so I know what I can improve."

Theme 2.

The second theme that emerged was *Giving Correctives is Difficult*. The fifth-graders wanted to be liked by their peers so it was difficult for them to point out "wrongs." Here are several examples statements exemplifying this theme:

"Like sometimes they don't agree with us so they don't listen."

"The worst part was when I had to tell him what he did wrong because it might hurt their feelings or something, or they might say well I am doing it right, you're just not seeing me."

Theme 3.

The third theme was *Helping is Empowering*. Here are two example statements from the participants:

"He really didn't do good in juggling until I was watching him and I was telling him he was very quick and he changed it."

"It was pretty fun because it was like giving you a chance to be sort of a PE teacher."

In a nut shell, students like to be put in a position of importance, they like to be empowered.

Theme 4.

The fourth theme was *Comfort Counts*. Working in the reciprocal style of teaching seems to be most productive when one is comfortable with his/her partner. Students suggest that it is difficult to interact when not comfortable with the person or subject matter. Here are two example statements:

"Well I liked having a classmate (I know) for a teacher because you know them better and you can kind of trust them a little more."

"Cause I didn't want, like to tell people what to do. I'm not good with balls."

Discussion

In style C the learners reported being empowered (i.e., able to make decisions about their partner's performance), challenged (i.e., able to analyze a partner's movements and give feedback), and fully engaged (i.e., socially, cognitively, and motorically) within a positive, and enjoyable instructional environment. Research suggests that interest, challenge, enjoyment, and choice are central constructs to designing effective and motivating

learning environments (Chen, 2001; Garn & Cothran, in press; Garn, Cothran, Byra, & Hodges Kulina, in review; Gentry & Gable, 2001a; Mandigo & Couture, 1996; Prochaska, Sallis, Slymen, & McKenzie, 2003; Prusak, Treasure, Darst, & Pangrazi, 2004). An intrinsically motivating environment is believed to foster positive attitudes, higher persistence, and achievement for students in education (Solmon, 1996). Student motivation, a key element to student engagement and learning, appears to be engendered in the reciprocal style of teaching.

Little is known about learner perceptions in the reciprocal style of teaching. This study adds to this body of literature. It also informs us about the strengths of directly involving students within the instructional environment and how this impacts ones' motivation to learn. The strength of this study lies in its length. In 15 weeks the participants experienced many style C episodes embedded within several different physical activities. A limitation of this study is that it was conducted with one class of learners and thus cannot be generalized beyond this 5th grade class of students.

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APPENDIX A

RECIPROCAL STYLE OF TEACHING (C) RESEARCH ANALYSIS CHECKLIST

PHASE ONE: ROLE IDENTIFICATION

- T L 1. Locates learners for introductory ceremony.
- T L 2. Names the teaching style.
- T L 3. States the purpose of the teaching style.
- T L 4. Describes the roles of the doer, observer, and teacher.
- T L 5. Identifies the triad and describes its structure and function.

PHASE TWO: SUBJECT MATTER IDENTIFICATION

- T L 6. Announces the general subject matter (objectives).
- T L 7. Announces the specific task(s).
- T L 8. Delivers task to learners (show and tell).
- T L 9. Establishes quality and quantity of task performance.
- T L 10. Establishes parameters and logistics for the nine impact decisions.
- T L 11. Establishes order of task performance.
- T L 12. Delivers the criteria (explains what a criteria is and how to use it).
- T L 13. Provides and explains task sheet.
- T L 14. Asks questions for task and/or role clarification.
- T L 15. Announces "Select a partner. Decide who will first be doer and observer, then begin."

PHASE THREE: PERFORMANCE OF THE TASK

- T L 16. Selects a partner.
- T L 17. Decides who is first doer and observer.
- T L O 18. Makes impact decisions within established parameters.
- T L O 19. Performs the task.
- T L 20. Switches roles of doer and observer.

PHASE FOUR: EVALUATION AND FEEDBACK

- T L O 21. Has the task sheet.
- T L O 22. Monitors the task performance.
- T L O 23. Compares and contrasts task performance against criteria.
- T L O 24. Draws conclusions about accuracy of task performance.
- T L O 25. Offers task-related feedback to doer.
- T L O 26. Initiates communication with the teacher, if necessary.
- T L O 27. Moves around classroom visiting each pair of learners.
- T L O 28. Responds to communications initiated by the learner.
- T L O 29. Reminds learners about details of task and roles, if necessary.
- T L O 30. Monitors role performance.
- T L O 31. Offers role-related feedback to observer and doer.
- T L O 32. Makes episode adjustments when deemed necessary.

PHASE FIVE: CLOSURE

- T L 33. Locates learners for closure.
- T L 34. Summarizes main points of episode.
- T L 35. Provides role-related feedback to learners based on objectives of the reciprocal style of teaching.