Developing Expertise: Using Video to Hone Teacher Candidates' Classroom Observation Skills

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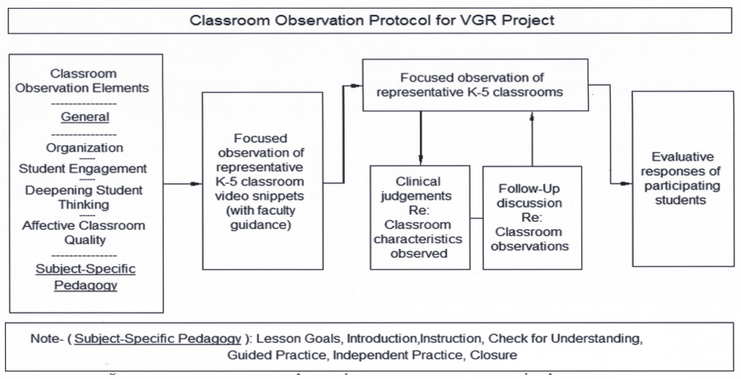
Abstract

This research explores the impact of a video observation model developed for teacher candidates in an early experiences course. Video Grand Rounds (VGR) combines a structured observation protocol, videos, and directed debriefing to enhance teacher candidates observations skills within non-structured and field-based observations. Findings illuminate that VGR teacher candidates (TCs) demonstrated significantly greater growth than non-VGR teacher candidates in their abilities to focus on salient features of classroom interactions, to identify the complexity of classroom interactions, and to readily transferred observation skills from a video platform to an in-school platform.

Video Grand Rounds Process



Methodology

A comparative research design was employed for this VGR model study. For the purpose of this study, the performance of TCs in the sections using the treatment (VGR model: incorporation of classroom videos for observation, structured observation protocol, in-class debriefing conversations) were compared to the performance of TCs engaging in unstructured observations of school classrooms in the field on a variety of outcome measures.

The research design compared performances between the two groups to determine if there was a measurable difference in TCs' transfer of skills and knowledge. All participants in this research were enrolled in a one-credit early experience education course and were limited in their prior knowledge of both curricular context and instructional strategies.

Data Collection and Analysis Procedure

1) Completed locally-developed observation protocol forms
2) Transcriptions of recorded in-class debriefing sessions
3) Reflective essays about the overall practicum experience focusing on TCs' learnings from their observations
4) Observation and reflection responses to a final exam video

Both quantitative and qualitative data inform the results of this study.

- Rubric scores from the completed, locally-developed observation protocol forms
- Coding from the other three documents

Research Questions

RQ 1: Is there a difference between teacher candidates' observations skills and knowledge transfer from video observation to observations in the field when candidates are exposed to the VGR (incorporation of classroom videos for observation, structured observation protocol, in-class debriefing conversations) model?

- **H_1:** There is a difference between teacher candidates' observations skills and knowledge transfer from video observation to observations in the field when candidates are exposed to the VGR model.
- **H_0:** There is no difference between teacher candidates' observations skills and knowledge transfer from video observation to observations in the field when candidates are exposed to the VGR model.

RQ 2: How do opportunities to observe, reflect upon, and discuss videos of classroom interactions affect elementary TCs' observations of and reflections on local classroom interactions?

RQ 3: In what ways do observation skills and knowledge transfer from VGR (incorporation of classroom videos for observation, structured observation protocol, in-class debriefing conversations) to non-structured observation events?

Findings

RQ 1 Findings An independent-samples *t* test was conducted to compare the observation protocol rubric scores completed during the field observations. There was significant difference in the scores for the VGR group (M=2.29, SD=0.46) and control [M=1.75, SD=0.5; t(-2.17)=, p=0.03]. The magnitude of the differences in the means was very large (Cohen's d=1.09). Consequently, H_0 was rejected. Additionally, when looking at the strength of the relationship between last video protocol observation (protocol 4) versus live classroom observation protocol (protocol 5) in the VGR group, there was a correlation of .40. This shows a medium positive relationship between the two protocols.

RQ 2 Findings Both groups of TCs completed an overall practicum reflection essay in which they discussed the overall practicum experience focused on what TCs learned from their observations. Results indicated that all TCs, regardless of group, focused on the four main categories described in the analysis section: *teacher, classroom management, students, and student/teacher interactions* (See Table 1). Within both groups, the overall tone of the comments was positive.

RQ 3 Findings

Exams--For their final exams, both groups of TCs viewed the same video and wrote about what they observed. Within both groups, the overall tone of the comments was positive.

Control group. The control group was more likely to make comments associated with the *classroom management* (30.51% vs 20.86%) category. These *classroom management* responses were succinct and clearly linked to observable behaviors.

VGR group. Analysis of the exams from the VGR group revealed that these candidates more frequently made comments associated with the *teacher* category (33.57% vs 28.82%). VGR TCs were also more likely to comment on *student/teacher interactions* (28.78% vs. 15.25%) and extended those comments beyond simple descriptions.

Debriefing sessions. The debriefing sessions only occurred with the VGR group, as part of the VGR model. TCs in the first debriefing session responded with yes/no and simple descriptive answers. There were few details or examples from the video to support statements or extend thoughts. Examples and extensions that were discussed were inserted by the instructor. In comparison, in the last debriefing session, TCs responded to questions and provided specific, detailed examples from their observations to support their statements. The instructor contributed to the discussion by deepening the dialogue, as connections to future coursework and theory were included in response.

Overall Practicum Reflection and Final Exam Results

	Reflection		Final Exam	
Category	**VGR Group**	**Control Group**	**VGR Group**	**Control Group**
Classroom Management	25.26%	47.97%	20.86%	30.51%
Student/Teacher Interactions	25.56%	22.76%	28.78%	15.25%
Students	24.22%	13.01%	16.79%	25.42%
Teacher	24.66%	16.26%	33.57%	28.82%

Table 1. Overall Practicum Reflection and Final Exam Results
Note: These numbers represent the percentage of the overall total from each group's coded responses to the reflection and final exam

Debriefing Results

Category	Debriefing Session #1	Debriefing Session #5
Classroom Management	13.33%	47.61%
Student/Teacher Interactions	40.00%	30.95%
Students	30.00%	21.42%
Teacher	0%	0%
Technology	1.67%	0%

Table 2. Debriefing Results
Note: These numbers represent the percentage of the overall total from each session's coded responses.

Discussion and Conclusion

The present study provides important insights into the benefits that teacher education programs and their candidates can derive by employing a structured, supported video model in early field experiences. TCs who participated in VGR demonstrated significantly greater growth than non-VGR TCs in several areas:

- Their abilities to focus on salient features of classroom interactions
- To identify the complexity of classroom interactions
- To readily transfer observation skills from a video platform to an in-school platform.

References

Brophy, J. (Ed). (2004). *Using video in teacher education.* Elsevier: Amsterdam, Holland.

Charles, C. M. (1998). *Introduction to educational research* (2nd ed.). White Plains, NY: Longman.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Gay, L. R., & Airasian, P. (2000). *Educational research: Competencies for analysis and application* (6th ed.). Englewood Cliffs, NJ: Prentice-Hall.

McDevitt, M. (1996). A virtual view: Classroom observations at a distance. *Journal of Teacher Education, 47*(3), 191-195.