

Using Video Segments to Enhance Early Clinical Experiences of Prospective Teachers

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Abstract

This poster outlines a perspective for framing an early clinical experience course by using a model in which video segments of typical K-5 classrooms are used in conjunction with a structured classroom observation instrument as a focus for subsequent classroom observations. By introducing a conceptual framework for student observations using video segments, students are provided with an efficient and conceptually coherent means for guiding their classroom observation experiences in school settings in the remainder of the course.

Requirements for Novice Classroom Observation

Ideally, a conceptual framework for classroom observations by students who are novice observers must meet several methodological requirements:

- First, the requirements for observing and then conceptually categorizing what has been observed must be within the cognitive/experiential capacity of the participating students.
- Second, as much as possible, the conceptual framework for the observation task(s) should focus on systemic classroom dynamics that are extensible for use subsequently in an increasingly detailed fashion in the teacher education program itself.
- Third, each category of classroom dynamics observed should be explainable by instructors in the form of specific procedures that teachers could apply to accomplish the observed outcomes in a manner that represents effective classroom practice.

Overall, these standards potentially allow the introductory clinical experiences to serve as a general introduction to important aspects of teaching practices that provides an initial conceptual framework for students beginning a teacher education program.

Design of the Early Clinical Experience Model

Structured Observation Instrument

The initial structured observation system piloted in 2012-2013 consisted of two complementary components: (a) general characteristics common to all classrooms and (b) instructional behaviors/actions exhibited by teachers. Each of these components was defined in a manner that was meaningful to novice observers making clinical judgments. Using pilot results and addressing the intent to make the observational system applicable to a variety of teacher education programs, the initial observation system was refined as shown Figure 1. As this Figure 1 shows the refined observation system, (a) kept the generic classroom characteristics, (b) added a new generic component representing phases of teaching/learning, and (c) made the specific instructional characteristics subject-specific teaching actions. The refined observation protocol is presently undergoing iterative refinement for use in different departments in the College.

Classroom Observation as a Conceptual Process

Figure 2 shows how the categories in the Structured Observation Instrument provides students with a conceptual framework for (a) focusing their observations in a manner that allows them to relate what is observed literally to conceptual categories, (b) using conceptual categories to organize or represent what they have observed in a coherent fashion, and (c) reporting what they have observed via written summaries or oral discussion in terms of conceptual categories. Without such an operational conceptual framework, observations by novice students are likely to be represented literally as unrelated fragments. By conceptually incorporating a core set of observational categories into the observation and reporting process, novice students are able to attend to important classroom dynamics in a manner that is directly relevant to their subsequent teacher preparation activities.

Overview of the Model Implementation. Figure 3 outlines the Clinical Experience Model used in 2012-2013 for the course ELEM 2123. As shown in Figure 3, all initial student observations are made through video segments of classroom instruction and summarized by students. Then, each of these common observed videos are discussed in debriefing sessions led by course instructors. Following these experiences, students then complete unsupervised classroom observations in school settings. Once all of these are completed, student prepare a cumulative essay summarizing their school classroom observations and participate in a single teacher-led debriefing session. As an end-of-class activity, students observe and summarize one additional classroom video. These summaries are used for course evaluations (see following sections).

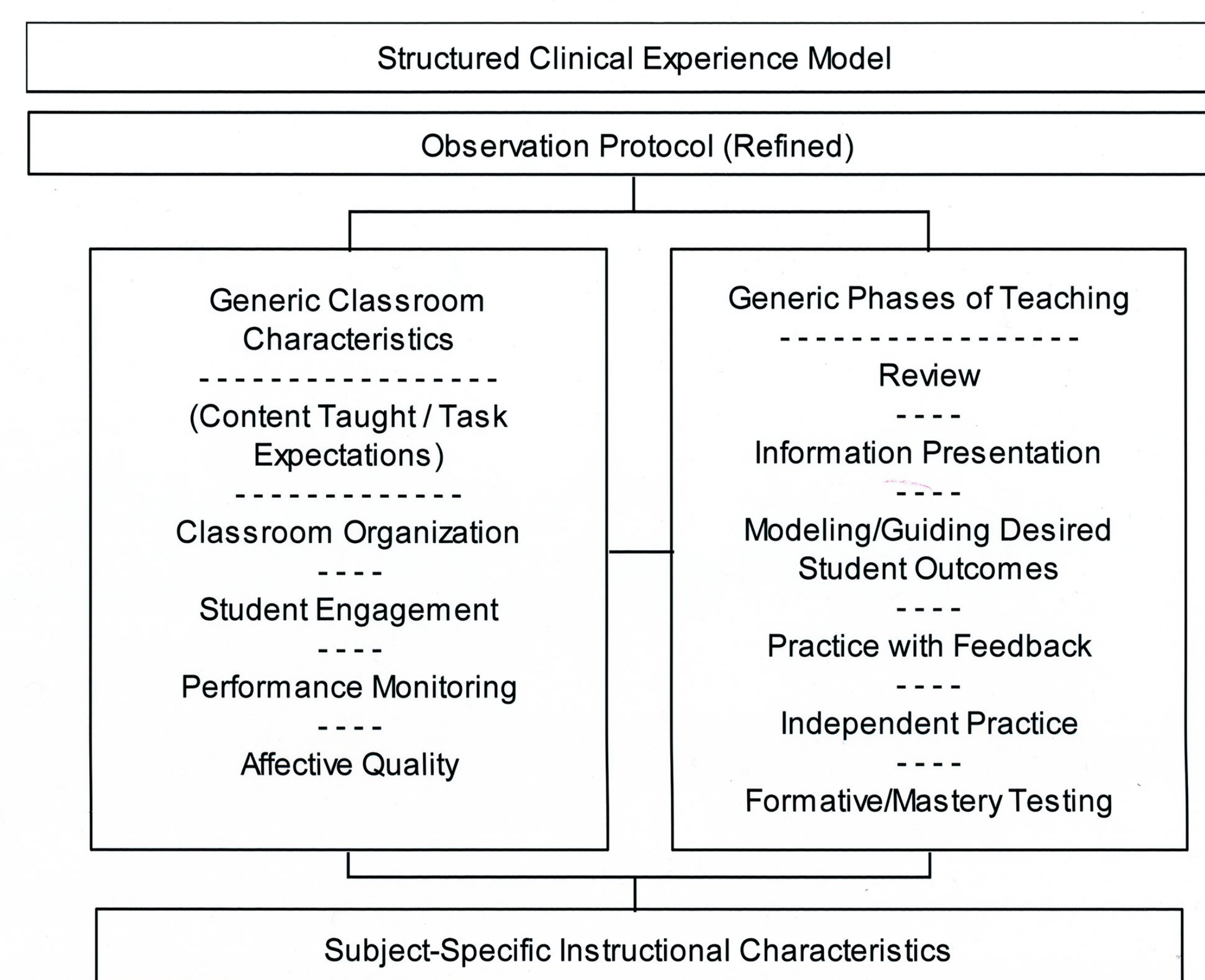


Figure 1. Refined Observation Protocol

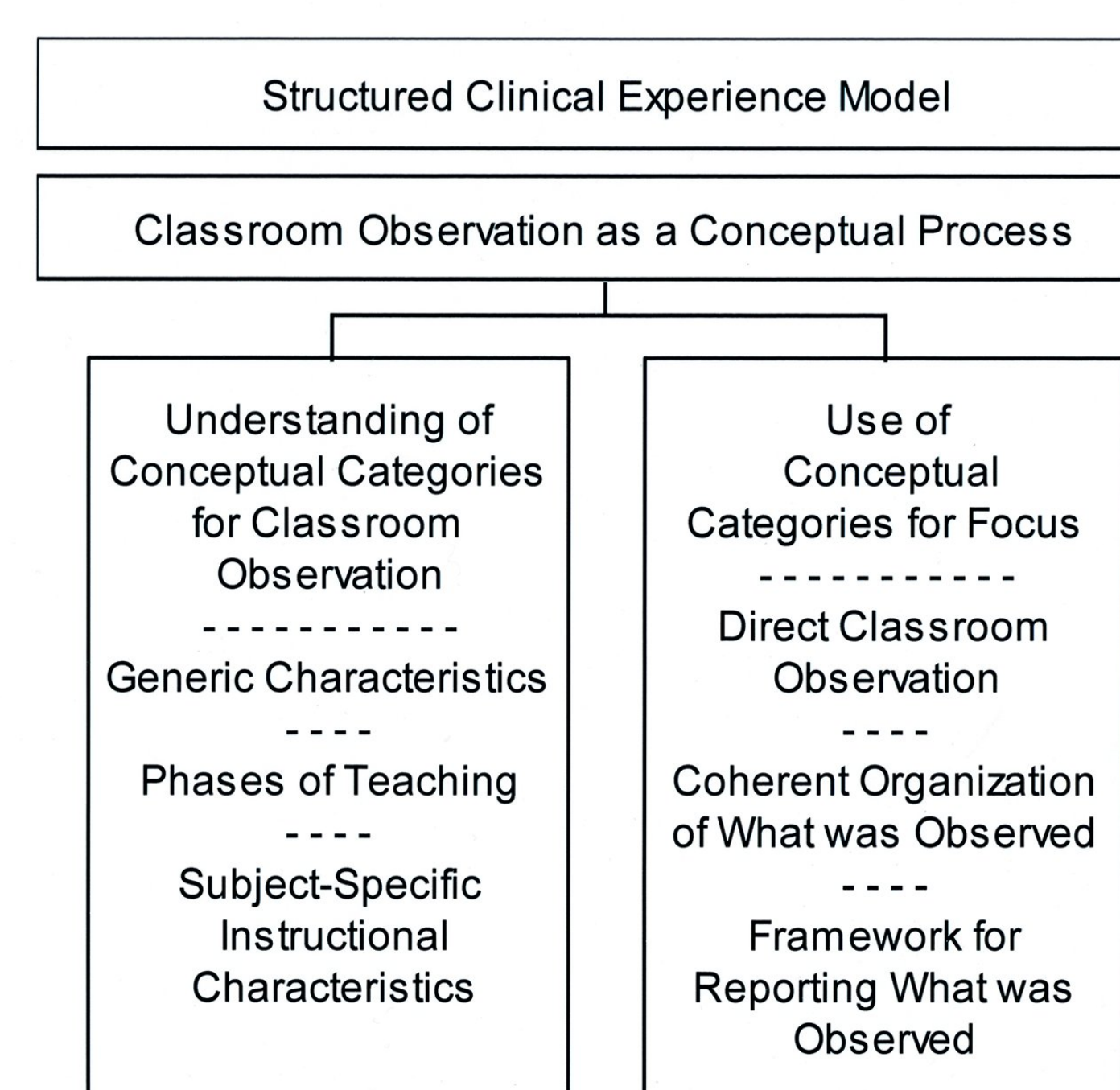


Figure 2. Classroom Observation as a Conceptual Process

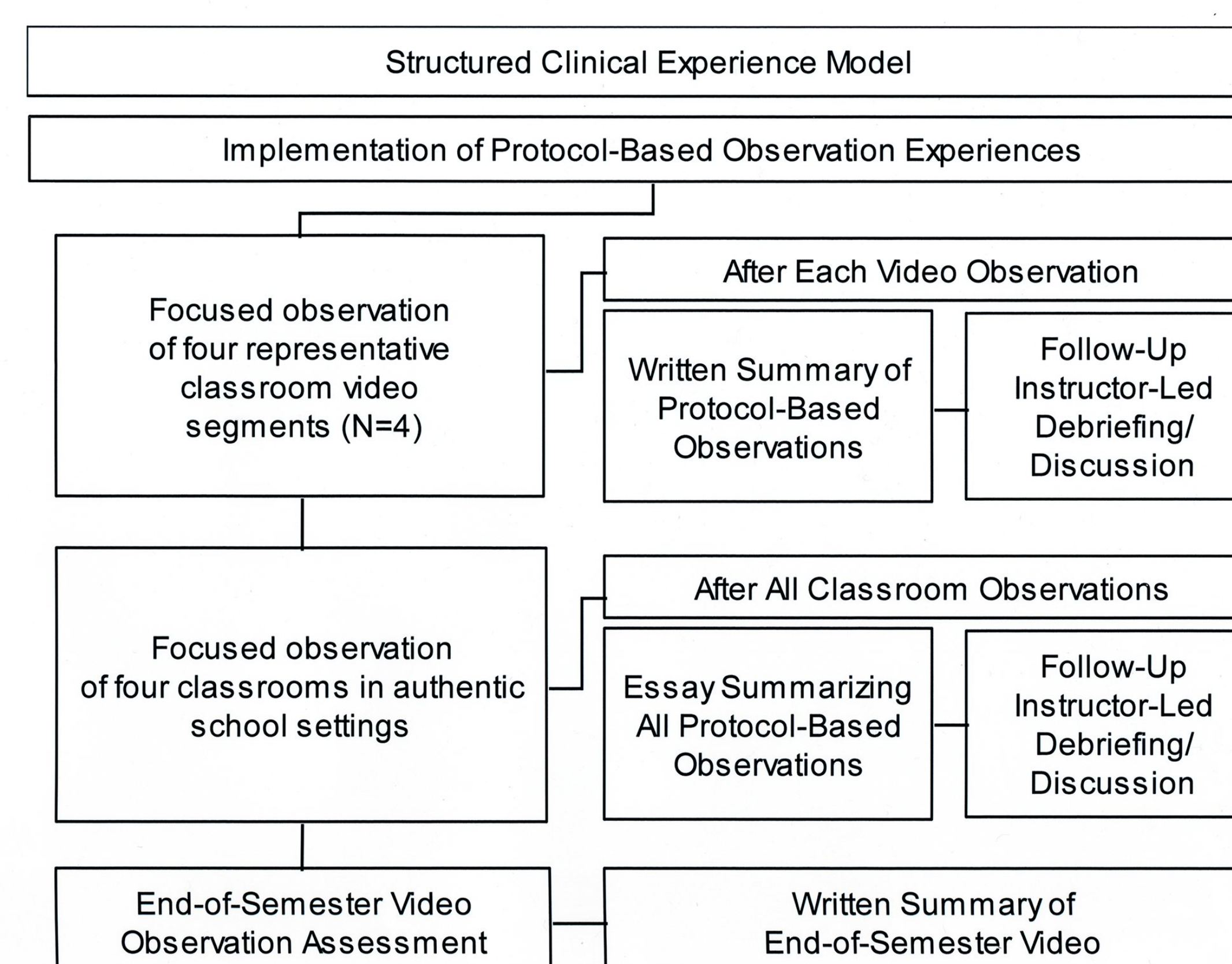


Figure 3. Implementation of Clinical Experience Model

Methodology for the Evaluation of the Clinical Model

Intervention and Comparison Participants

During the 2012-2013 academic year, students in all sections of the ELEM 2123 Clinical Experience Course engaged in sixteen hours of classroom observations. In Fall, 2012 and Spring, 2013, several sections (N=5, N=2, respectively) of ELEM 2123 applied the structured observation protocol to observe report, and discuss the four classroom video segments for twelve of the sixteen course hours and, on a follow-up basis, to the remaining four hours of unsupervised classroom observation in school settings. A similar number of ELEM 2123 sections that did not observe the videos or use the observation protocol served as a comparison group.

Evaluation Design

Students in the video course sections using the structured observation protocol as a guide and the comparison sections both entered their video and school-based classroom observations into a web-based database tool for analysis as did the comparison students. For the evaluative study, the following data were used: (a) student summaries of video observations, (b) student essays summarizing school observations, (c) debriefing transcripts (session 1 vs. session 4 for experimentals only), and summaries of the end-of-course video. For each of these sets of data, Latent Semantic Analysis (LSA) was used to compare the semantic content of student writing (or debriefing sessions) to researcher-developed reference descriptions based on the four generic classroom characteristics and on the key teacher actions specified in the initial observation form.

Evaluation Findings

The major evaluation findings were as follows:

Implementation Feasibility

The intervention was found highly feasible for use with novice students in the Clinical Experience Course.

LSA Performance Analysis

1. Debriefing Session Discussions: Improved protocol correspondence from 1st to 4th videos.
2. Greater correspondence for Instructional Actions than for General Classroom Characteristics.
3. Greater correspondence for instructional protocol on Final (end-of-course) video than for Essay (school observation based).
4. No overall difference in protocol correspondence between experimental and control students.

Conclusions, Implications, Future Refinements

- General Clinical Experience Model structure (See Figure 3) found "operationally sound."
- Findings from year 1 study suggest following model refinements for 2013-2014:
 1. Addition of protocol-focused teacher questioning to initially guide discussions in debriefing sessions that follow video or school observations.
 2. Identification of videos that are more reflective of instruction in authentic classroom settings.
 3. Refinement of observation protocol into three parts (see Figure 1): (1) generic classroom characteristics, (2) generic phases of learning/teaching, (3) subject-specific instructional characteristics (to support expansion to other program areas).
- Methodological Issues and Considerations
 - Explorations for refinement of use of LSA methodology (non-conceptual, literal listing of observations can spuriously over-fit researcher-constructed LSA reference documents).
 - Explorations for refinement of how LSA reference documents can be constructed in an optimal form.
 - Supplementary research design for qualitative analysis (NVIVO) of samples of student work.
 - Recording of transcripts for debriefing sessions for both experimental and comparison groups.
 - Investigation to determine if LSA-based "Summary Street" would provide a powerful text analysis tool in support of student use of the observation protocol.