The meaningfulness of case studies in an educational psychology class: Students' perspectives

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Abstract

This study focuses on the perspectives of pre-service teachers exposed to cases in an educational psychology course. It considers how students view cases and how their thoughts, beliefs, and attitudes regarding case-based activities change throughout the semester. Both qualitative and quantitative data (participating observations, interviews, surveys, California Critical Thinking Disposition Inventory) are presented regarding students' perspectives, as well as interview data on the perspectives of several EPY instructors who teach with cases. Students' perspectives are compared with the theoretical intent of cases and the expected learning outcome of teachers using cases to show correlating or opposing views.

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<u>Introduction</u>

During the past decade, case studies have become a common pedagogical method in educational psychology courses. Today, cases are readily available for use by instructors of educational psychology courses (Elksnin, 2001). Instructors have the option of using short vignette-type cases that are provided in nearly all educational psychology survey textbooks (e.g., Ormrod, 2006; Woolfolk, 2005), or to use a separate book of more detailed cases as a supplement to an educational psychology text (e.g., Silverman, Welty, & Lyon, 1996). Although there have been intermittent periods of research on case studies in teacher preparation courses, the research on the effectiveness of cases as a pedagogical method is far from extensive (Engle & Faux, 2004; Lundeberg, Levin, & Harrington, 1999; McNaughton, Hall, & Maccini, 2001; Sudzina, 1997). One area in which there is very little systematic research is on education students' perspectives based on their participation in case-based instruction (Ertmer, Newby, & MacDougall, 1996). One study by Leonard, Mitchell, Meyers, & Love (2002) obtained feedback from students in a general psychology course in which they indicated that case studies helped them comprehend abstract course material through illustrative examples, verify their understanding of core concepts, and increase their involvement, interest, and attention in introductory psychology. But do students view cases as meaningful learning activities in education courses? Do pre-service teachers believe that cases promote self-reflection, problem-solving skills, the ability to cognitively deal with the ambiguity of the reality of classrooms, and generally help them to be self-regulated teachers? Often times expected course outcomes and instructional purposes of college professors are not seen the same way by their students. It is important for students to see the value in an educational endeavor in order for it to be

meaningful. This study, in general, seeks out the students' perspectives of cases as either just another assignment or a purposeful endeavor.

Theoretical Perspective

As Anderson et al. (1995) describe in their article on the role of educational psychology in teacher education, "the goal of an educational psychology course … is to develop a teacher's psychological perspective, emphasizing analysis of and action in teaching situations" (p.145). They go on to describe how, based on the thinking of Doyle (1990), that it is important for teacher-educators to help pre-service teachers recognize "the complexity of teaching practice and the need to empower teachers to construct their knowledge in forms that help them interpret and solve teaching dilemmas" (p. 146). *Complexity* refers to the classroom's multidimensional nature and high level of unpredictability and uncertainty. In addition, the social and ethical values of pre-service teachers will influence the manner in which they construct their pedagogical knowledge and interact with students in this complex classroom environment. Harrington (1997) points out that this is why dilemma-based cases, often written in an ambiguous manner such as those by Silverman et al. (1996), are ideal to help prepare teachers for the complex teaching situations that students will soon have a major contributing role.

The investigation of students' perspectives and how they view cases in general during the course of their use in an education class is not well documented.   Much of the literature on cases is based on *instructor* assumptions over the value of cases. Many of these instructor rationales for teaching with cases are found in the literature (Griffith & Laframboise, 1997; Merseth, 1991). Some suggest that using cases as a pedagogy helps students see the link between theory and practice and is often based on a constructivist view of learning, especially that of social constructivism (Kaste, 2004; Lundeberg & Fawver, 1994; Sudzina, 1997). Through class

discussion of cases, students are exposed to multiple perspectives and have the opportunity to reflect on how theory can be applied in a realistic situation (McNaughton et al., 2001; Silverman et al., 1996). Cases are seen as a way to develop reflective-practitioners and provide real meaning to how subject matter content knowledge and pedagogical knowledge can enhance classroom practice (Allen, 1995, 1994; Mizukami, 2002). Adding to this, Kleinfeld (1998) believes one of the major advantages of teacher educators using cases with pre-service teachers in college classrooms is the ability to reflect on real and often emotional-laden issues without actually experiencing the emotion due to the cases providing "distance from the action" (p.141).

The perspectives that pre-service teachers have as novices to the education profession may be different than those held by their instructors. Prospective teachers enter education courses with limited professional perspectives about teaching in general, as well as the variety of teaching methods that can be used (Anderson et al., 1995). As education majors in college transition from being students to teachers, their belief systems go through a gradual developmental change that expands this limited perspective (Kitchener, 1986; Kuhn, 1991). Since pre-service teachers are viewing the use of cases in their classes from the perspective of a student, their perspective is likely to be developmentally different than the teachers who have deliberately chosen to use cases as an instructional/learning method. What are the assumptions and perspectives that students have when they are introduced to cases in an education course? Some students may be more critical in their thinking about the role of cases in their education. Do students perceive cases in a personal and professional meaningful way or do they simply see them as just another classroom demand required by the teacher to pass the course? It is likely that students have different thoughts and attitudes about cases than their instructors and these

perspectives most likely influence their behaviors when they read cases, discuss them, and write up analyses.

To investigate the students' perspective on the meaningfulness of cases, our research was guided by the following research questions:

1. What are students' general attitudes toward learning with cases?

2. What do pre-service teachers view as the purpose of case studies that are integrated into semester-long educational psychology courses?

3. Do students perceive the study of cases as information to be learned for future transfer when they become full-time classroom teachers?

4. Are there differences of how cases are viewed by students when considering "reflective" personality differences among students?

5. How do the students' perspectives on the purposes of case studies match or not match the perspectives of instructors who teach with cases?

<u>Methods of Inquiry</u>

Subjects

The subjects of this study included a subset of students enrolled in two undergraduate survey courses in Educational Psychology (N = 19). The participants consisted of 14 female and 5 male students, all Caucasian and all education majors. Seven students were classified as "returning students" (25 years or older), while the other 12 students were classified as "traditional" age students (18-24). These nineteen students volunteered for the study during the first class session. One of the courses (EPY370) was a morning section and the other (EPY350) an evening section. These courses used cases extensively to help students connect educational psychology principles and theories to real classroom situations. During the semester both classes

of students read and discussed six cases from the Silverman et al. (1996) case book, typically one case every two weeks. Students in both sections were also required to write extended case analyses (~ 8-10 pages); three in the morning section and four in the evening section.

Data was also collected from four Educational Psychology professors who have taught with cases for at least 4 years. Two of the professors have taught multiple sections of the survey of educational psychology courses in which the student subjects were enrolled. The other two professors regularly use cases in a developmental psychology course they teach and have recently published a book together that contains "development" case studies. The years of teaching experience these instructors had in the educational psychology department ranged from 4 to 20 years.

Data Collection

Several levels of analyses were involved to investigate the questions of this study. Both qualitative and quantitative data were collected to obtain information to answer the research questions listed above. Qualitative data was collected to allow us to understand more clearly students' perspective on how cases are viewed by them during their experience with cases in educational psychology courses. We looked for themes that might emerge from the qualitative analysis of the interviews and observational field notes that would give us insights to students' perspectives on the value they place on cases, as well as, when compared to quantitative data collected might indicate if students with varying dispositions towards critical thinking viewed cases differently. In addition, by comparing the students' interviews and instructors' interviews we hoped to see how teachers and students view cases similarly and differently. By collecting both qualitative and quantitative data we hoped to find some general, as well as specific insights

into students' perspectives regarding cases in order to answer the five research questions that are the focus of this study.

Demographic Survey

Demographic data was collected at the beginning of the term on students regarding gender, age, major, previous experience in classrooms, and experiences with case studies. Fifteen of the students had previously had a course (developmental psychology or classroom management) in which they had discussed cases. Only four students had no experiences with case studies. The information from this survey helped to answer research questions 1 and 3.

California Critical Thinking Disposition Inventory (CCTDI)

The CCTDI was administered at the beginning of the semester to the students in the Educational Psychology classes to classify students by their critical thinking dispositions. The CCTDI measures seven dispositions related to critical thinking. These dispositions include:

1. *Truth-seeking* which is being "courageous when asking questions, eager to seek best knowledge in a given context, and honest in the pursuit of inquiry."

2. *Open-mindedness* which is "being open to and tolerant of the expression of divergent points of view with the sensitivity to the possibility on one's own bias."

3. *Analyticity* which is "being alert to potentially problematic situations, anticipating possible results or consequences, and prizing the application of reason and the use of evidence even if the problem at hand turns out to be challenging or difficult."

4. *Systematicity* which is approaching "specific issues, questions or problems in an orderly, focused, and diligent way."

5. *Self-Confidence* "refers to the level of trust one places in one's own reasoning processes."

6. *Inquisitiveness* which "measures one's intellectual curiosity … and values being well-informed, wants to know how things work, and values learning even if the immediate payoff is not directly evident."

7. *Maturity* which measure how one "makes reflective judgments, particularly under conditions of uncertainty" and "approach problems, inquiry, and decision making with a sense that some problems are ill-structured … and many times judgments must be made based on standards, context and evidence which precludes certainty."

(Facione, Facione, & Giancarlo, 2001, pp. 2-3)

The CCTDI was chosen since the seven dispositions it measures correspond to the types of skills that reflect instructor rationales for teaching with cases to prepare teachers for the classroom as previously discussed. The data from the CCTDI addresses research question 4.

Participating Observation

One of the authors was a participating-observer in the Monday evening section of the Educational Psychology course while doing her student-teaching experience during the day. This student had completed a similar undergraduate psychology course in which cases were used three semesters previous to this study. Having previous experience with an EPY course gave her an informed and "insider's" perspective while being a participating-observer in the study. She recorded field notes to document students' behaviors and actions related to the use of case studies and the discussion of them by students in the class. In addition, the participating-observer informally listened to students before and after class sessions and recorded their comments about cases. This data focused on answering research question 1.

Interviews

Formal interviews were conducted during the semester with the research participants by two graduate students not associated with the study to gain students' perspectives on cases. Interview data was used to note changes in students' thinking about cases before discussion of the first case, after the third case, and at the end of the semester after all six cases had been investigated. A common set of questions were used during the interviews (see Appendix B). However, additional probing questions were asked to get students to expand on some of their answers. A total of 49 interviews were conducted and tape-recorded with the 19 students. All interviews tapes were transcribed for analysis. The information gathered through interviews and observations addresses research questions 2 and 3.

In addition, four instructors who regularly teach educational psychology courses with cases were formally interviewed in order to compare teachers' and students' perspectives on case pedagogy (see Appendix C). All the interviews were tape-recorded. This data addresses research question 5.

Video tapes of case discussions

All case discussions (12) were video-taped to be analyzed in relationship to the seven critical thinking disposition categories measured by the CCTDI in order to be compared to the students' CCTDI scores and demographic data to determine differences among students and their perspectives based upon critical thinking abilities (research question 4).

Data Analysis

Data from the survey, observation field notes, and students' interviews were analyzed using a constant comparative method to identify common themes about students' perspective on case studies (Glaser & Strauss, 1999). The surveys, observation notes and interview transcripts were color coded based on emerging themes. By reviewing the data several times thematic

categories were collapsed to form "major" themes that held a relationship to research questions 1, 2, and 3. Teacher interviews were analyzed and major themes were noted regarding instructors' purposes for using cases. These were then compared to data obtained regarding students' perspective to answer research question 5.

Findings

Question 1: What are students' general attitudes toward learning with cases?

"You will have to write four 8-10 page case analyses throughout the semester". As Dr. Allen describes the assignments related to the cases, Student-102 discreetly catches the eye of another student, raises her eyebrows and roles her eyes. "I can't believe these case studies. In [EPY] 245, case studies were only two pages" (S-107). As case studies were introduced to the EPY 350 class, students had a multitude of concerns over grades, the amount of analyses that were to be done, and length and form of the case analyses. On the day the first analysis was due, Student-110 comments to Student-109, "I changed the font from Times New Roman to Courier New, which made my paper go to eight pages". The anxiety over the paper causes Student-101 to ponder out loud if doing an extra case analysis would override another one that received a lower grade, while Student-107 claims she "doesn't freaken care". Students 110 and 109 show each other their papers continuing to discuss the length of their analyses. Student-102 realizes she has forgotten to place her ID number, which secures her anonymity for unbiased grading, on top of the paper. She shrugs her shoulders stating "the teacher will not lower my grade if I forgot [my number]".

As one can imagine, the liveliness and strong opinions of these students was not done in the presence of the teacher. They were observed and recorded by the first author in her role as a

participating-observer in the class. Comments presented are pieces of conversations that took place before class, during breaks, and after class.

Concern over grades was still an issue when it came time to hand in the second case analysis. Student-101 states, "I pretty much figured out what he wants" but admitted, "I didn't really get this analysis". Student-108 comments that she "constantly revised" her case analysis.

It was not until preparing for the class discussion of case four that students began to discuss amongst themselves before class the actual content of the cases and related educational psychology principles, as opposed to the format of the case analysis. Grades, however, remained a constant factor. Students freely voiced their past grades on cases, reacting with surprise, "I was shocked I got a 93 on the last case", or disappointment, "I work really hard and I get an 85. I thought I did so much better" (S-102). A week before case five was to be discussed; students began to talk about the issues of the case before class. It was evident that several students had read or had begun to read the case before the assigned date. The day case five was to be discussed; several students began to discuss specific educational psychology principles as related to the case. However, a few students voiced difficulty applying principles to the case. For example, one student stated, "I didn't use any ed. psych. principles. I don't care, I don't know." These informal, before class discussions began towards the end of the semester to mirror the discussions lead by the instructor.

When reviewing the comments students made on the surveys and during the interviews, it was clear they had distinct and different attitudes about reading and discussing cases verses writing case outlines and analyses. In general most students liked to read and discuss the cases, and by the last interview at the end of the semester no one indicated a dislike for reading and discussing the cases (see Figure 1). However, many students disliked having to write case

analyses. The strongest expression of dislike was expressed in the first interview which occurred just before the first case analysis was due. By the end of the semester when students were interviewed for the third time, although several students still mentioned their dislike for writing the case analyses, many students stated they either like writing the analyses or at least "saw value" in writing them (see Figure 2).

As seen from these observations, there was a gradual shift during the course of the semester in students' attitudes and engagement of cases. The shift was away from a focus on the form and format of case outlines and analyses and towards reflecting on case study content and application of educational psychology principles.

Question 2: What do pre-service teachers view as the purpose of case studies that are integrated into semester-long educational psychology courses?

Through analyzing the three sets of interviews from the study participants, three major themes were extracted related to what students believe to be the purpose of case studies. The major purpose seemed to be the belief that cases reflect the reality of the classroom. Students saw cases as being reality based and, through the progression of the course, came to trust the authenticity of the cases they were reading. Many students fear their own lack of experience in the field of education. As one of those students, the first author of this paper had anxiety over the numerous issues that she was unaware existed, but yet would encounter promptly when entering into her own classroom. This issue was addressed, although not to the fullest extent that direct experience would have, by engaging in the problem-solving nature of reality based cases. When situations similar to those of cases are encountered, the process of working through the analysis of the case reflects how issues should be dealt with. In an interview, a student responded that cases "basically help me to be a better teacher. When that time comes, so that

when I get into those situations I know what to do, I know how to think through that process, I know that there are other people I can go to, and treat it almost as if it was a case study and go through all these analyses, just to get a better answer and a better evaluation myself and be able to solve it better" (S-101). A reoccurring statement within this theme was that cases could be seen as a simulated experience that students could take part. "I think that they give the students a way to have the experience before actually going into the classroom"(S-127). Another student suggests that being aware and seeing the complexity of teaching through cases helps to develop a broader schema for teaching. "It gives me a different perspective, things I would never think of happening. That I would never really know how to handle if they did happen to me if I didn't have past experiences with certain situations" (S-107).

The second theme that emerged had to do with the more immediate purpose for using cases in an Educational Psychology class. This had to do with applying theory to educational practices. The application and active use of theories brought the course content to a more meaningful and purposeful level. "It gives you something that you can't learn from a book. It's easier for me to learn the principles sometimes when I see them applied to situations. They're more understandable" (S-107). In many courses, ideas are seldom brought down to practical use, as one student states, "you…apply it and I think that is what's wrong with a lot of the courses that you take, is that they don't show you how to apply the information you learn" (S-116). One student believes that application of theory is most important because, "I will think of how I can use this theory in that situation, not what is this theory, and not what it's supposed to do, but if I can make it work … It helps us apply the knowledge we've learned. It makes us think more about what we're doing and think at a higher level than just reading the book and answer some questions" (S-109). Connections between theory and practice are illustrated by using cases and

students confirmed the usefulness of this tactic. "It just forces you to think deeper about the information that you're learning, so you're not just learning it and memorizing it, you're actually thinking about these theories and trying to apply them" (S-127).

Developing the mind of a teacher is difficult to do when experience in the classroom follows our education courses. What we are learning is not immediately reinforced, and even more problematic is the two to four year lapse before learned information can be applied to student teaching or a job. Cases attempt to bridge this gap by exposing students to the complexity of the classroom and developing a broader and more open perspective. The engagement in case discussions allowed students to see the varied perspectives on the issues that were raised in cases and many students commented on their change in attitude towards a case after listening to other students' perspectives. The value of discussions are "beneficial because without knowing it you definitely tend to have a narrow mind about certain things, so during the discussion in class everybody's bringing up different points and you're like 'wow, that makes sense,' and you just get to see things from all different perspectives…"(S-127). Pre-service teachers come to teaching with their own background, which may lack the insight needed to reach the varied students in their classes. Awareness of such things as special needs, diversity, motivation, and varied learning styles are difficult to teach through a textbook. Cases are "covering a large range of different problems that most people are going to experience in the classrooms. I think that it's going to give us a good head's up on what to expect when we do get into the real working world" (S-116). Doing cases helped one student "not just think of the student, but it made me think of how the student is that person and…you need to know whose coming into your classroom not just their name and their face" (S-105). It is easy to lose focus of the students you are teaching when the emphasis in an education degree program leans

towards theories, the rise of importance on educational standards and assessment, and studying the latest trends that claim to promote greater learning.

The student perspective gained through investigation of question 2 clearly illustrates that students came to view cases as realistic, simulated teaching experiences to reflect on how educational principles can help them address classroom issues. Cases also allow students to focus on how important it is to focus on students as individuals as well as realize that they gain valuable perspectives from their peers through case discussions which expand their schemas for teaching.

Question 3: Do students perceive the study of cases as information to be learned for future transfer when they become full-time classroom teachers?

A major question, that was found to be tied to the purpose of case studies, was whether or not students saw cases as information to be learned for future transfer when they become full-time teachers. Initially, in the demographic survey and first interviews, students questioned if the cases could be for "practical use" (S-110) and if the cases presented would provide enough information to make it feel realistic. Students referred to the past use of vignettes, where there was a more targeted issue with a prescribed set of solutions, to be of little help to them when they enter the classroom. Some students also felt that it was unlikely they would reflect back on the cases when they began teaching. "I'm not sure how much of that information that I learn from the case studies I would apply in the classroom. I don't think I would think of it. … I'm not sure I would make the connection like 'oh, this is just like this incident that is going on in the classroom is a lot like what I learned in this case that I worked on two years ago … I don't think that I'd make the transition" (S-122). Others noted that although they might not remember specifics from a case, general ideas might transfer into their teaching. "I don't think the specifics

will stay in my mind, like who and what and where, but I think the general idea on how it was approached by an opposite teacher compared to what I want to approach it as" (S-108).

After students had participated in reading, discussing, and writing on the cases at least once, they quickly dropped their initial concern over the practical use of using cases. Students also saw other benefits of using cases, such as "open[ing] up my point of view" (S-105) or they saw them as "giv[ing] you some sort of experience or at least insight on what to expect as a teacher" (S-123).

Through the analysis of data related to answering question 2, it was discovered that many students automatically saw the purpose of cases as for future transfer. This was seen when students reflected on their own future practices as a teacher. However, there was a distinction with other students. Some students reflected solely on the task at hand where theory was applied to a specific case and did not consider how these investigations of a case might transfer to a later teaching experience of theirs.

Question 4: *Are there differences of how cases are viewed by students when considering "reflective" personality differences among students?*

This question is minimally addressed in this paper. The video-tapes of the case discussions have not been analyzed based on the seven CCTDI components of reflective and critical thinking dispositions. However, an analysis of students' total scores on the CCTDI and the average of their case study analysis grades indicate that there is a small positive relationship between the two. Students with higher CCTDI scores generally had higher grades on their written case analyses (see Figure 3). Writing "good" case analyses requires being "open-minded" to considering various perspectives, being "analytical" in considering problems, solutions, and consequences, structuring the written analysis in a "systematic" manner, and dealing with the

ambiguity and uncertainty in the cases in a "mature" manner. Since these are four of the reflective/critical thinking qualities that the CCTDI measures it suggests that students who have a greater critical thinking disposition may get more out of cases than those with lower critical thinking dispositions as measured by the CCTDI.

Question 5: How do the students' perspectives on the purposes of case studies match or not match the perspectives of instructors who teach with cases?

In analyzing the interviews with the four instructors who use cases with pre-service teachers in their educational and developmental psychology classes, all four mentioned three related major purposes for using cases: (1) the development and understanding of content knowledge (2) through situating the discussion of content knowledge within the realism of the context of a case (3) to help students "concretize" and synthesis complex issues related to teaching and human development. Although uses and purposes of cases mentioned by the instructors revolved around these three themes each instructor expanded on them in different ways (see Figure 4).

Instructors clearly expressed that one of their major goals was to have students learn the fundamental psychological principles and theories presented in the course and that cases were used because they felt they increased students' interest and motivation to learn the principles and therefore students might retain the information longer than if presented in a more didactic manner. Two of the instructors (I-1, I-4) also spoke about cases helping students to develop pedagogical knowledge for when they become teachers so that they will not only have the content knowledge base but understand ways to apply it.

Three of the instructors (I-1, I-2, I-3) spoke specifically about using cases that had significant levels of ambiguity in them in which information pertinent to the case is not fully

known. They felt this was an importance aspect of cases they used since in real life educators often have to make decisions based on incomplete information. And although instructors realized that this ambiguity or "grayness" in cases made students anxious, especially at the beginning of the semester, two of the instructors (I-1, I-3) noted that students eventually learn to handle the grey areas that generally exist in teaching situations.

Related to the realistic and ambiguity of cases, instructors generally viewed class discussion of cases as an important element tied to a constructivist orientation on learning. They spoke of establishing a "community of practice" among students in the class (I-1, I-2) which helped students to view individuals and classroom situations from multiple perspectives which in turn would expand their more narrow perspective related to the issues in the case (I-2, I-3, I-4). Through small and large group class discussions of cases, students are forced to expose their thoughts and beliefs as well as their general thinking processes (I-1, I-4). One of the "difficulties" mentioned about case discussions was that sometimes they can be unpredictable and take unexpected turns or lead to digression based o the unique perspectives brought to the discussion by the students in the class (I-1, I-2, I-4).

Each of the instructors had different ways they required students to write about the cases. Their major focus was to provide an opportunity for students to synthesize the EPY knowledge base they were learning in the course with the information they learned from reading the case, along with discussing it in class where multiple perspectives were presented, in order to "concretize" theory into practice (I-1). Several instructors mentioned that having students write case analyses was a major way they assessed students knowledge in the course (I-1, I-3, I-4), as well as help to develop the professional writing skills of the students (I-2, I-3). However, one instructor (I-2) was clearly aware that for most students discussion of cases may be "fun" and

enjoyable, the writing tasks associated with case is often seen as "work" that students would rather avoid.

If we compare the perspectives of students with those of instructors as to the purpose for cases as described in their interviews we see that there is a good bit of agreement and similarity. Both view the "realism" of the case to simulate actual classroom or development issues as a major purpose for using cases for instruction and learning. This is seen as a better pedagogical manner to learn educational theory and practices than simply reading and having lectures and discussions on text material. Both students and instructors also view the case discussions as having the purpose of exposing and becoming aware of the multiple perspectives in which one can view complex classroom situations or variations in development.

The two areas that there are the strongest differences in perspectives, however, relate to the ambiguous manner in which case are often written and presented, and the importance placed on writing case analyses. As discussed above and illustrated in Figures 1 and 2, students had a general dislike for writing case analyses but really liked discussing the cases. Students felt that they learned a lot through the discussions and hearing multiple perspectives on the case issues and didn't really learn anything new by writing the analyses. The analyses were really seen as just another assignment to complete and the focus was often on the grade and form rather than what was learned through the actually writing.

Whereas instructors often purposefully choose cases that are ambiguous to illustrate the "messy" complex nature of human interaction (I-4), many students view the ambiguity as disturbing. Some wanted more information in cases. "I don't feel they give you enough information to truly understand what's going on and usually doesn't do justice to the situations" (S-110). "I would like more information. There's times where you have to guess a lot" (S-116).

Sometimes students felt they didn't know what the "truth" of the situation was due to the ambiguity. "Not knowing everything kind of bothers me. I am afraid to make a judgment because I don't really know the truth" (S-123).

<u>Educational Implications</u>

There are several reasons why this study has educational importance. First, it provides information from the perspective of students about a commonly used method of instruction - a perspective that is too often neglected in educational research even though students are the most affected by it. Second, by gaining the students' perspective, and understanding the value students place on cases, teacher-educators can use cases more effectively by modifying how they use cases in teacher education courses. This research also contributes to the on-going development towards the knowledge base regarding the use of cases as a pedagogy in the preparation of teachers, specifically their use in educational psychology courses.

In many areas students' perspectives regarding cases are similar to the major intentions that instructors have for using them. However, instructors using cases need to keep in mind that students in their classes are often closer in time to their past high school experience than their future experience as a classroom teacher. Thus, developmentally they often still view class activities and requirements from a "student" mind set more than a "teacher" mind set. They may see the value and purpose and even enjoy the reading and discussion of cases, but the writing case analyses is often just viewed as more "work" for them. From the students' perspective, the reading and then sharing viewpoints in discussion seems to be where the value of cases lies. The writing does not seem to be very important.

Instructors that use cases that are written in an ambiguous style, might wish to do as one of the instructors interviewed for this study does with her students. She spends time at the

beginning of the course discussing with students why she uses cases that have levels of ambiguity and the relation to the complex and uncertain nature of teaching. By providing a conceptual framework as to the benefits of dealing with ambiguity in analyzing and discussing the cases, students may have less anxious and concern for the lack of information and uncertain truth they find in the cases.

<u>Future Research</u>

The next step of our analysis will be to review the approximately 20 hours of videos of the 14 case study discussions. A coding scheme based on the seven critical thinking dispositions of the CCTDI will be developed to categorize students' verbal and non-verbal behaviors captured in the case discussion videos. They will then be compared with students' CCTDI scores to see if there is any correlation between students' behaviors during class discussions and their level and type of critical thinking dispositions they have.

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Appendix A: Course Schedule

30 August   Course Introduction

13 September   Instructional Objectives & Behavioral Learning Theories

20 September   Behavioral Learning Theories & **Case Analysis - Maggie Lindberg**
      Information Processing Theories of Learning

    READINGS**: Case Study #1: To the Student (pp. 1-6) & Maggie Lindberg (pp. 36-40)**

27 September   Constructivist Theories of Learning
                ** CASE ANALYSIS for Maggie Lindberg DUE September 27 **

4 October   Humanistic Approaches to Teaching & **Case Analysis - Ken Kelly**
      READINGS: **Case Study #2: Ken Kelly (pp. 23-30)**
                ** CASE OUTLINE for Ken Kelly DUE October 4 **

18 October   Motivation
              ** CASE ANALYSIS for Ken Kelly due October 18 **

25 October   Cultural & Socioeconomic Diversity & **Case Study #3 - Mark Siegel**
      READINGS: **Case Studies: Mark Siegel (pp. 66-68)**
          ** CASE OUTLINE for Mark Siegel DUE on October 25 **

1 November   Individual Differences in Learners
              ** CASE ANALYSIS for Mark Siegel DUE November 1 **

8 November   *Case Study #4 - Joan Martin, et al.* & Intelligence and Gender Differences
        READINGS: **Case Studies: Joan Martin et al. (pp. 41-49)**
       ** CASE OUTLINE for Joan Martin, et al. DUE on November 8 **

15 November   Assessment and Standardized Testing
         ** CASE ANALYSIS for Joan Martin et al. DUE on November 15 **

22 November   Measurement & Evaluation of Classroom Learning

29 November   *Case Study #5 - Sarah Hanover* & Classroom Management
      READINGS: **Case Study #5: Sarah Hanover (pp. 19-22)**
       ** CASE OUTLINE for Sarah Hanover DUE on November 29 **

6 December   Classroom Management & Course Review
      READINGS: **Case Study #6: Karen Lee (pp. 31 - 35)**
        ** CASE ANALYSIS for Sarah Hanover DUE December 6 **
        ** CASE OUTLINE for Karen Lee DUE on December 6 **

13 December   Final Exam

EVALUATION   GRADES
Contributions to Class Discussions (10%)   100 pts   A = 925-1000 pts
4 Case Study Analyses @ 100 pts (40%)   400 pts   B = 800-924 pts
Diversity Activity (10%)   100 pts   C = 675-799 pts
5 Quizzes (nongraded)   xxxxxx   D = 550-674 pts
Final Exam (40%)   400 pts   F = < 550 pts

2. Case Study Outlines & Analyses: During the semester we will analyze 6 case studies of actual classroom situations experienced by teachers. For all of these cases you will be required to prepare an outline of the case before the discussion (to be turned in the day of the discussion – see Appendix A for guidelines). During the semester you will be required to turn in <u>four</u> analyses of these cases (two my choice + two your choice). Each will be due the week after the class discussion of the respective case. <u>The analyses must include a completed checklist of the information listed in Appendix B</u> of this syllabus.

Appendix B: Case Study Analysis Guidelines

A written analysis will be required for several of the case studies discussed. The analysis is to be typed, double-spaced, and approximately 8-10 pages long. It should minimally contain the following information:

1. A clear statement of the problems in the case that the teacher must resolve. Both the teacher's perspective of the problems and your perspective should be identified. Often these two perspectives will not be the same. You need to state <u>why</u> these problems are important and cite specific evidence in the case that illustrates that these, in fact, are problems. You must <u>support</u> your perspective based on the theory and principles of educational psychology presented in the assigned readings and discussed in class. Your thinking regarding the problem should reflect what you are learning from the educational theory and research.

2. Some possible solutions to the problems. Try to be as specific as possible, citing a specific "plan of action" for the teacher to solve the problems. Your solution should be written clear enough so that the teacher in the case study could read your solution and begin trying it in their classroom tomorrow to solve the problems. Also address possible consequences for your suggested solutions. Be sure to relate your solution directly to the readings assigned in class, primarily those under present consideration and any appropriate readings done earlier in this course or another course.

3. **Include a copy of the following checklist indicating with an (X) that you have reviewed, proofread, and included each indicated item in your analysis paper. Attach to the end of your paper after the reference page**.

<u>Case Study Analysis Evaluation Checklist</u>
1. _____ A clear statement of the problem(s) in the case that the teacher most solve.
   _____ teacher's perspective
      _____ supportive evidence from case
      _____ relation to principles and theories of educational psychology*
   _____ your perspective
      _____ supportive evidence from case
      _____ relation to principles and theories of educational psychology*
2. _____ Possible solutions to problem(s) addressed in 1. above
   _____ specific "plan of action" that the teacher could initiate to solve problem(s)
   _____ integration of appropriate educational psychology principles* to support
   your "plan".
   _____ possible consequences that could result from the suggested solutions.

* (principles from most current readings required; principles from previous readings optional as appropriate and desired.)

3. _____ Reference page (references are listed on a separate page)
            _____ APA style
4. _____ Correct use of grammar, spelling, sentence structure, etc.
5. _____ Social Security Number (no name on papers)

Case Study Discussion Guidelines

- Be prepared to participate actively [read; analyze with EPY principles from text; create outline]
- Focus on quality vs. quantity by providing support for your points
- Take a position and defend it, BUT be open to other perspectives; it's OK to change your mind [even desirable at times]
- Focus on other's comments [active listening; able to summarize previous comments] in order to build analysis on a particular point
- Respond to other students directly
- There are no "right" answers; just better supported ones
- Class discussion of a case is a group effort to understand problems in the case
- Embellish original outline with additional comments (original outline ONLY a starting point)

Case Study Analysis Papers

- Focus on most current readings in text first, then consider other issues (the purpose is for me to evaluate your understanding of EPY principles and application of principles to the case)
- Provide specific rather than vague and general solutions
- Cite references (Snowman & Biehler; Silverman et al.) appropriately according to APA guidelines
- Proof-read papers (checking spelling and grammar) before submitting

Case Study Format

What is the problem? [hypothesis/problem solving]

- What is the major issue/problem in the case?
- Do you think this is the major issue/problem? Why or why not?
- From who's perspective?
- Background information/data

Why is it a problem?

- What evidence (data) supports that point? (Snowman & Biehler; Silverman et al.)

How could it be solved? [hypothesize solutions]

- What should be done?
- How should it be done? (specific solutions)

Why that way?

- Support solutions with EPY principles (Snowman & Biehler; other sources)

What are the possible consequences of that solution? [evaluate solution]

- Implications for the teacher? Students? Others?
- Positives (advantages) vs. Negatives (disadvantages)

Appendix B: Interview questions for students

- What are your general thoughts about the cases that are used for your educational psychology course?

- What purpose do you think case studies serve? In general and to you specifically?

- What are your thoughts about reading the case studies for class?

- What are your thoughts about the case discussions in class?

- What are you thoughts about writing case analyses?

- What do you like in general and specifically about studying cases as part of the course?

- What do you dislike about the cases?

- What additional thoughts would you like to share about the use of case in the course?

Appendix C: Interview questions for teachers

- Could you outline how you use cases in your classes? What do you do and what do students do.

- What are your general thoughts about cases as a pedagogy in your educational psychology courses?

- Why do you use cases? What purposes do you think cases serve? In general and for students specifically? (how much emphasis on EPY content knowledge vs. process/analysis vs. solutions/applications)

- What do you want students to gain from **reading** the case studies for class?

- What do you want students to gain from the case **discussions** in class?

- What do you want students to gain from **writing** case analyses?

- What type of cases do you use and why those types (ask about level of ambiguity in cases)

- What do you like in general and specifically about using cases as part of the course?

- What do you dislike about the use of cases?

- What additional thoughts would you like to share about the use of case in the course?

Figure 1: Students' Perspectives on Reading and Discussing Cases

	Like	Dislike	Not Sure
Demographic Survey	6	1	2
Interview **1**	8	1	6
Interview **2**	15	3	0
Interview **3**	13	0	0

Students' Perspectives on Reading & Discussing Cases

(Bar chart titled "Students' Perspectives on Reading & Discussing Cases" with y-axis "Number of Student Responses" from 0 to 16 and x-axis "Interviews" showing Dem, Int 1, Int 2, Int 3. Legend: Like, Dislike, Not Sure.)
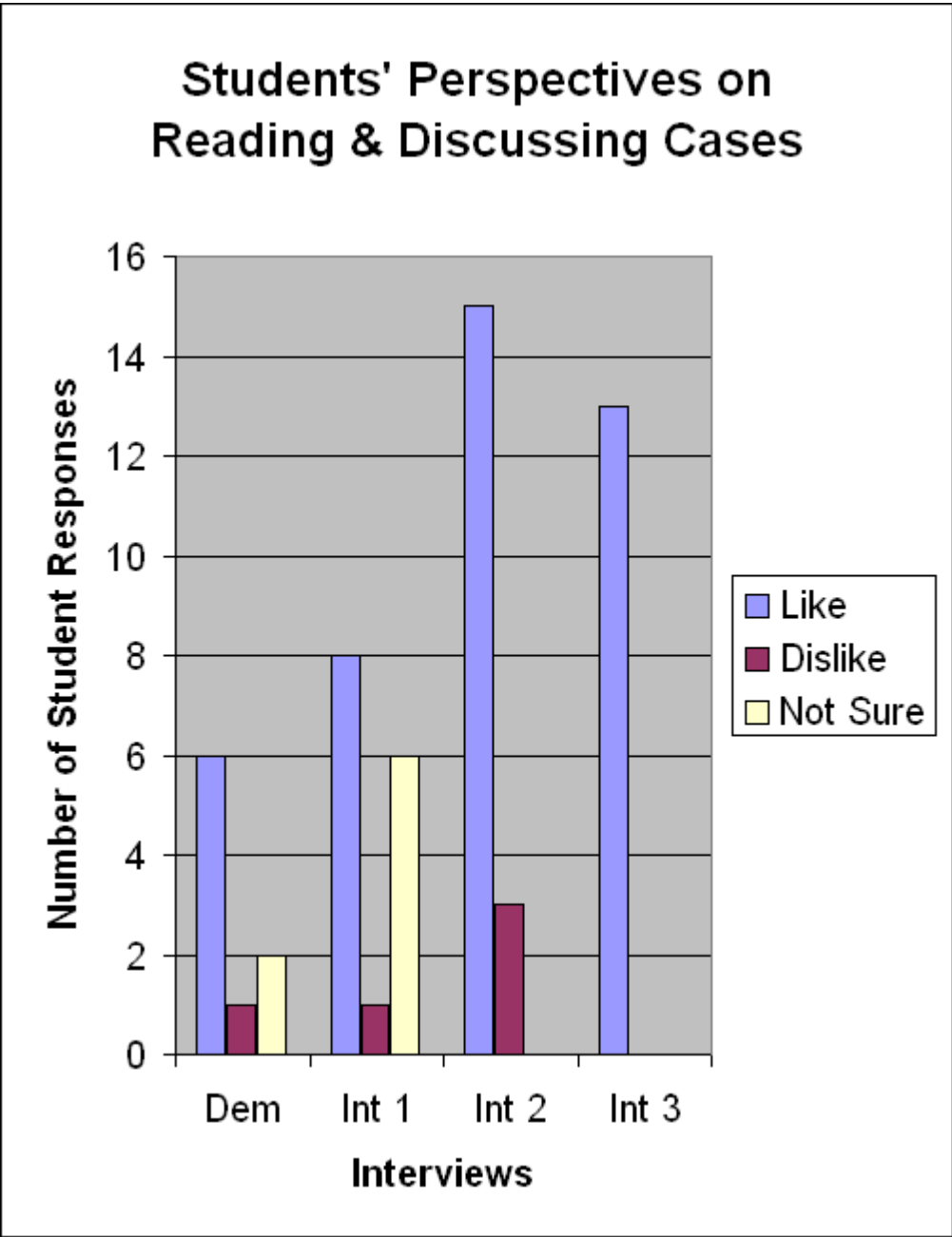
Figure 2: Students' Perspectives on Writing Case Analyses

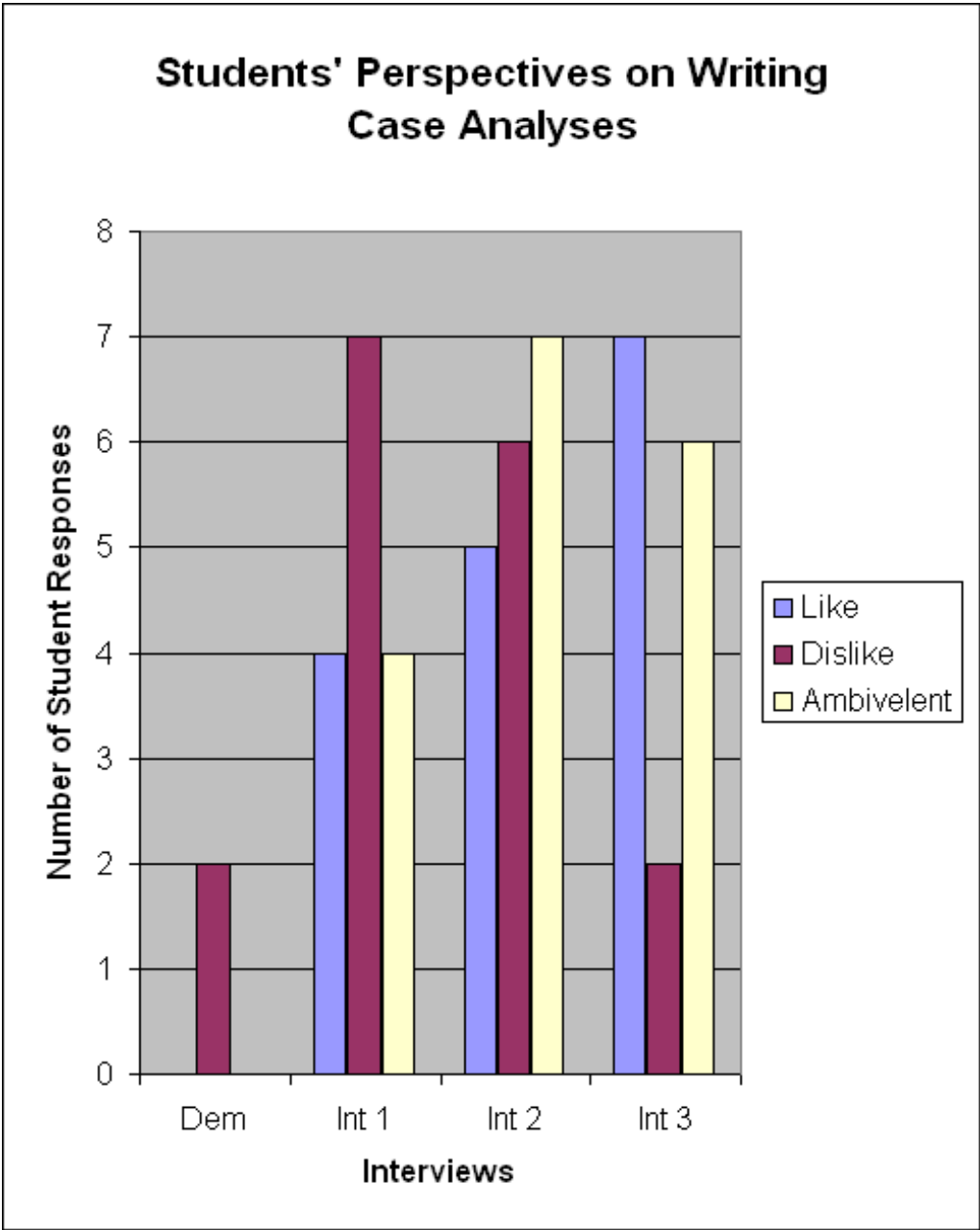|	Like	Dislike	Ambivalent
Demographic Survey	0	2	0
Interview **1**	4	7	4
Interview **2**	5	6	7
Interview **3**	7	2	6

Figure 3: Comparison of Student's CCTDI scores and Average Case Analysis Grade
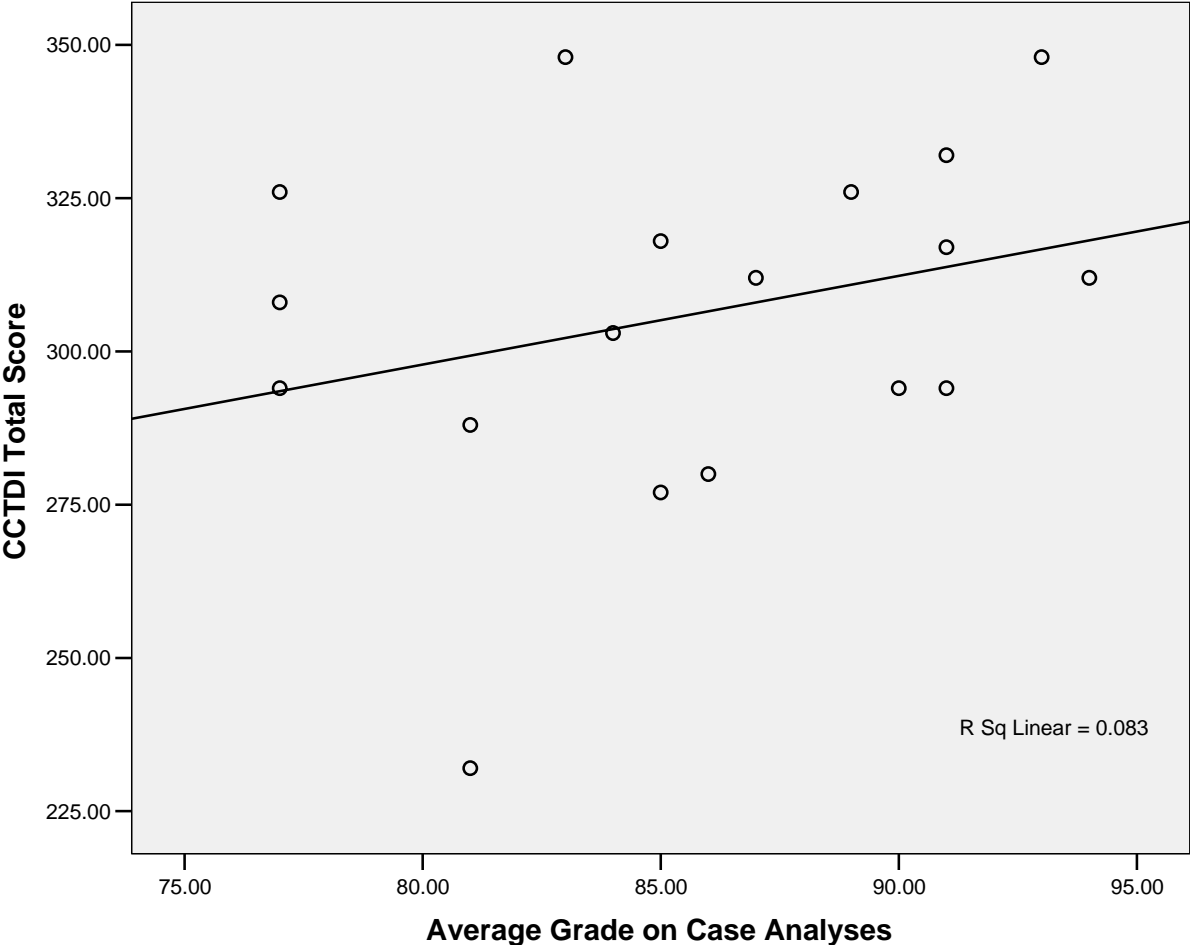
Figure 4: EPY Instructors perspective on the purposes and uses of cases

	I-1	I-2	I-3	I-4
Development of EPY content knowledge	**X**	**X**	**X**	**X**
Development of "technical" language of EPY	X		X	
Development of pedagogical knowledge	X			X
Provides a realistic context (realism) which engages students	**X**	**X**	**X**	**X**
Helps students see the complexity of teaching or human development	X		X	X
Prefer cases that are written in an ambiguous manner (more realistic)	X	X	X	
Discussions establish a "community of practice"	X	X		
Discussions help develop multiple and expanded perspectives		X	X	X
Discussions force students to externalize their thinking process	X			X
Writing about cases helps students to "concretize"/synthesize info	**X**	**X**	**X**	**X**
Writing about cases provides an assessment for evaluation	X		X	X
Writing helps to improve professional writing skills		X	X	
Discussions can be unpredictable; have unexpected turns; digress	X	X		X
Students often anxious about cases at beginning of semester	X	X		X
See growth and change in students thinking over the semester	X	X	X	
Students learn to handle "grayness"/ambiguity in cases during course	X		X	
Students see discussions as "fun", but writing analyses as "work"		X		
Students shift away from their unrealistic expectations			X	
Wrote case book due to lack of good "realistic" development cases			X	X