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PREVIEW

COLLEGE STUDENT STUDYING:
A COLLECTIVE CASE STUDY

by

Patti S. Gubbels

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Interdepartmental Area of
Major: Psychological and Cultural Studies

Under the Supervision of Professor Ken A. Kiewra

Lincoln, Nebraska

December, 1999

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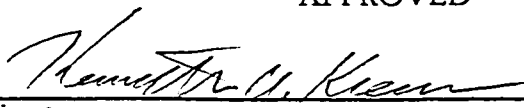
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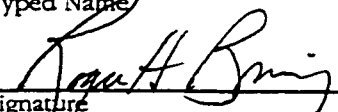
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COLLEGE STUDENT STUDYING:
A COLLECTIVE CASE STUDY

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University of Nebraska, 1999

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This case study investigated how five community college students studied for one general psychology course test. Students wrote a study plan, kept study journals, and were observed during a study session. They were also interviewed about studying within several weeks following the course test. Lecture notes, study materials, and study traces were collected and analyzed. The story of studying that emerged included themes of studying logistics, study processes, commitment to learning, student self-perceptions, and social influences and revealed practical information about what, where, and with whom students studied, how they studied, and what influenced their studying. Findings led to the development of profiles describing the best and the worst of college student studying. Additionally, three key factors that made a difference in studying were identified and explained: commitment to learning, systematic studying approach, and learning and social supports.

ACKNOWLEDGEMENTS

I would like to acknowledge several special individuals who helped make this work possible. First, there are important women in my family who have contributed to my success. I thank my Gram. She had a wonderful ability to weave entertaining life stories. I thank my mom for her insatiable quest for knowledge and her love of education. I thank my sister Vicki for showing me that any adversity can be managed with humor and thoughtful reflection.

Second, there are important men in my life who have supported and believed in me. I thank my husband Pat and my sons Adam and Wade for their encouragement and love.

Finally, there are important professors who have challenged me to do my best. I thank, in particular, my advisor, Dr. Kenneth A. Kiewra.

PREVIEW

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INTRODUCTION TO THE STUDY

1

Statement of the Problem

William Rohwer (1984) issued a challenge to educational researchers to develop a psychology of studying. He invited educational psychologists to make a commitment to research efforts that would unveil the phenomenon of studying.

Educational psychologists undertook the quest to understand this phenomenon and have learned much by investigating how students study (Thomas & Rohwer, 1986; Weinstein, 1988), by examining external influences on studying, such as course context and teacher expectations (Thomas, Bol, & Warkinton, 1991), by identifying types of studiers (Wade, Thrathen, & Schraw, 1990), and by manipulating the materials students study (Kiewra, Kim, Meyers, Levin, Renandya, & Hwang, 1994; Kiewra, Schraw, Lang, & Phifer, 1994).

Although much has been learned about studying, Rohwer's (1984) invitation to educational psychologists to develop a psychology of studying has not been fully accepted. Perhaps the phenomenon of studying remains shrouded because it is so difficult to uncover. Studying occurs at self-selected times and in private study havens such as dorm rooms, libraries, places of employment, or corners of campus buildings. Studying includes a myriad of possible strategies that vary from one student to another and from one context to another.

Experimental studying research, which typically focuses on specific aspects of studying, has led to some revelations about studying. For example, investigations of study materials have shown that certain study materials such as outlines and matrices enhance academic performance (e.g., Kiewra, 1985; Kiewra, Schraw, Lang, & Phifer, 1994).

Experiments on study time have shown that college students who are given a longer time to study outperform students given a shorter time to study (Gubbels, Kiewra, Andersen, & Aveyard, 1995). Investigations of study strategies show that students trained in specific strategies such as concept mapping (Burke, 1994), verbal and imaginal elaborations (Weinstein, Underwood, Wicker, & Cubberly, 1979), and executive control (Nist, Simpson, Olejnik, & Mealey, 1991) improve performance. These investigations have provided important information about studying, however, they are only snippets of the complete studying story. Perhaps the understanding of studying remains clouded because of limitations in current studying research.

Consider how three important studying topics—study materials, study time, and study strategies—have been researched in a piecemeal fashion and the limited picture of studying that has emerged. In classical study-materials investigations, students are provided different study materials to review for a short time and later are tested over the information presented. In the Kiewra, Kim, Meyers, Levin, Renandya, and Hwang, (1994) study, for example, students were assigned to either an outline, matrix, or no study material condition. Study materials were presented either in print, representational picture, or pictorial mnemonic form. Students studied their respective study materials for 10 minutes and then took factual recall, comparison, relationship, and application tests. This is not what usually happens in the real world where students typically initiate their own studying. The materials students actually study stem from information presented to them over an extended period of time through numerous lectures, activities, and assignments. The study materials are not given to them in one neat package. Instead

students are often left to design their own study materials. Even if students are given prepackaged study materials, there is no guarantee that they study them as they must do in the experimental setting.

A second example of how experiments examine only snippets of real-world studying is illustrated by looking at research on study times. In studying experiments, students are directed to study at specific times and for limited durations. For example, in one experiment (Gubbels, Kiewra, Andersen, & Aveyard, 1995) college students studied text, outline, or matrix representations for either 10 or 20 minutes. The problem is that in the real world, study time is determined by students, not by researchers. Students actually control when and for how long they study. The amount of time they spend studying probably depends on many things, such as how much information they have to learn, whether they want to perform well on the test, and whether they make time to study. These important variables are not accounted for in current experiments that manipulate study times.

A third example of how experiments limit the picture of studying is found by looking at typical study strategies research. In these investigations, students are provided information about the strategy, given opportunities to practice the strategy, and expected to use the strategy in an experimental setting. In one study (Nist, Simpson, Olejnik, & Mealey, 1991), for example, students were trained in four study strategies—encoding, word meaning, organizing, and executive control— and then were expected to use the strategies as they studied in the course. Although it is important to know that specific study strategies work, no one specific strategy or set of strategies works for all study

situations (Nist, Simpson, Olejnik, & Mealey, 1991). Study strategy research is limited because it lacks external validity. In most college classrooms students are not taught or required to use particular study strategies. Instead they are left to use whatever strategies they know and deem appropriate for the specific learning situation. These typical study strategy investigations do reveal whether specific strategies work, however, they do not reveal how students actually study for tests.

Experiments often limit the complete understanding of studying because they restrict its natural dimensions. They often lack ecological validity and are decontextualized because they attempt to measure studying in controlled settings by artificially manipulating study factors. In the natural state of studying, students control what they study, how they study, and when they study.

Research that examines studying in its natural state fortunately has begun (e.g., Bol, O'Connell, & Nunnery, 1996; Sweidel, 1996; Van Etten, Freebern, & Pressley, 1997). Self-report studies, for example, ask students to tell how they study for tests and to tell what factors influence their studying.

Current self-report investigations, however, also have limitations. Most self-report investigations use questionnaires that ask students about studying in general or how they recently studied for an exam (Bol, O'Connell, & Nunnery, 1996; Sweidel, 1996). Students respond to those questionnaire items based on how they perceive they study in general or how they remember recently studying for an exam. Students' perceived study behaviors, as indicated on questionnaires, are not verified through observations of actual study behaviors or through interviews with students as they are in the process of

studying for a particular course test.

That is not to say that college student studying interviews do not exist. Student beliefs about exam preparation were recently investigated through a progressive interview process (Van Etten, Freebern, & Pressley, 1997). Students in this study responded to open-ended and specific questions about how they generally study for course tests. Students answered questions such as: *How do you prepare for tests? Why do you prepare for tests? How do tests affect your learning? Do your feelings or emotions influence how you prepare for tests?* Responses to these interview questions revealed students' beliefs about studying for course tests, the study strategies they employed, external factors that influence studying, and other studying aspects.

The Van Etten et al. (1997) investigation, although revealing, leaves an important studying issue unanswered. When students responded to the interview questions, were they responding about their typical study habits and behaviors or were they responding about a particular course they were enrolled in at the time of the study? And, are there "typical" studying behaviors? Even though students in the Van Etten et al. interview were responding to questions about typical studying, they gave answers that indicate studying is inherently connected to a specific course setting and varies from one course to another. For example, students responded that knowing the format of the upcoming test influences how they study for the test. Some students stated they use different study strategies for different courses whereas others acknowledged they use the same strategies for all courses.

The comprehensive interview process used by Van Etten et al. (1997) uncovered

some of the complexities of studying but contained limitations. Their interview questions aimed at general studying behaviors might not have captured what students actually do in a particular study context. Self-regulation and motivation research suggests that students study differently from one class to another (Butler & Winne, 1995; Deci, Vallerand, Pelletier, & Ryan, 1991). Students use information about the courses they are taking to help them determine how to study and what to study. Students assess course characteristics (Thomas & Rohwer, 1986), think about how they will be tested (Van Etten, Freebern, & Pressley, 1997), and attempt to match their understanding of the course content to that of the instructor (Simpson, Hynd, Nist, & Burrell, 1997).

Purpose of the Study

Educational psychologists have begun to develop a psychology of studying in response to Rohwer's (1984) invitation. An understanding of studying is not complete, however, without examining what students do as they prepare to take course tests.

This case study attempts to do just that: examine students in the context of studying for a college course test. A psychology of studying must synthesize information, collected as students are in the process of studying, about how, when, where, and why college students study for course tests.

In this case study of college student studying, I used research techniques that did not impose limitations on the natural studying processes. For instance, students were not given materials to study. Instead I asked students to tell me about and show me the study materials and resources they used for studying.

Students were not taught study strategies or told to use them. Instead, I explored the

strategies students used as they studied for a particular course test by (a) asking them to keep a study journal, (b) observing them study and having them think-aloud as they studied, (c) interviewing them about studying shortly after they took a course test, and (d) examining their study materials to confirm their self reports.

Studying time frames were not restricted or altered. Instead, I asked students to note when and for how long they studied. I asked them what influenced the time they spent studying. To verify students' self-reports, I triangulated interview responses, observation data, and study journal information. I verified those results with student-produced study materials.

Limitations and Balances of the Study

I attempted to tell a more complete and more natural story of studying and to overcome some of the limitations of current studying research. The present investigation of studying, however, has three limitations of its own. These limitations are balanced against possible positive benefits of the research design.

First, this investigation explored studying in a system bounded by number, time, and place. The study was bounded by number because it tells the tales of studying through the experiences of just a few college students. The study was bounded by time because it was limited to a five-week period within a course where students were exposed to and studied information for one course test. The case was also bounded by place because the study focused on students enrolled in one section of a general psychology course at a mid-western community college. The drawbacks of restricted numbers of persons, place, and time are balanced against the opportunity that bounded systems afford for in-depth

and detailed data collection from multiple information sources.

Second, purposeful sampling was used for selecting the participants. The purpose was to explore the phenomenon of studying for a course test in the General Psychology class. This type of purposeful sampling is referred to as convenience sampling (Creswell, 1998) because all of the participants were students who could further the understanding of the phenomenon. All students in a general psychology class were invited to participate in the study. Those who volunteered to participate became the studying informants. Convenience sampling restricted the range and kind of information that might have been collected from a random sampling of a larger group of students. Purposeful sampling allowed for the inclusion of students who could provide different perspectives of studying for the course test.

Third, the participants were students in a general psychology course I taught. There was a possibility that data might be compromised if students withheld information, changed their studying behaviors on my account, or told me what they thought I wanted to hear about studying. The opportunity to maximize information about studying outweighed those concerns because, as the instructor, I was also immersed in the context of the class as no outsider could be. I had developed a working rapport with each of the students during the first eight weeks of the course that might enable rich, honest, and open communication about studying. I knew, because I taught the course, what information students should have noted from lectures and what they should have studied for the test.

RESEARCH DESIGN

The research design section provides a backdrop for the case study research by outlining the overall research strategy, introducing the participants, describing the General Psychology class, and presenting the general research time line. It also provides a description of the data sources.

Overall Research Strategy

The project was designed as an instrumental, collective case study. Instrumental case studies focus on an issue or issues (Stake, 1995). This case was instrumental because it examined the issue of college student studying. I sought a general understanding and insight about college student studying by observing and interviewing several students in the process of preparing to take a real course test. Collective case studies include more than one case or participant. This case study included data collected from five community college students as they studied for a course test. The case was the story of studying; the students were the story's narrators.

Participants

Let me introduce the five narrators of this studying story. The five students who volunteered to participate in the research appeared to represent the typical yet varied case of college students studying for a course test. Information about the five students was gathered through observation and a demographic survey prior to the study.

Student 1 was a freshman elementary education major who scored 71% (C) and 53% (F) on the first two course tests in the General Psychology class. Student 1 scored a 17 on

the ACT test and was enrolled in 12 credit hours during the fall 1997-98 semester.

This student worked 20 hours each week during the fall semester and lived in an apartment with several other college students, one of whom was also taking the course.

Student 2 was a freshman majoring in general studies who had a dream of becoming a professional dancer. Student 2 worked at a studio approximately 20 hours each week teaching dance to children and young adults. This student scored 23 on the ACT test and was enrolled in 12 credit hours during the fall 1997-98 semester. She earned a 90% (A) and 66% (D) on the first two course tests. She lived in an apartment with several other college students.

Student 3 was a freshman majoring in pre-radiology. Student 3 scored 17 on the ACT test and was taking 13 credit hours during the fall 1997-98 semester. She came to me in tears after scoring 58% (F) and 46% (F) on the first two course tests. She lived alone in an apartment and worked approximately 20 hours a week at a large discount store.

Student 4 was a freshman majoring in social work who scored 90% (A) and 95% (A) on the first two course tests. This student scored 21 on the ACT test and was taking 16 credit hours during the fall 1997-98 semester. She stayed with her grandparents during the school week and worked at a local hardware store for approximately 20-25 hours a week.

Student 5 was a freshman majoring in nursing who earned a 93% (A) and 77% (C) on the first two General Psychology course tests. She scored 21 on the ACT test and was enrolled in 13 credit hours during the fall 1997-98 semester. Student 5 worked

approximately 25 hours a week at several part-time jobs and lived in an apartment with her boyfriend.

These five participants, immersed in the process of studying for a course test, gave insider perspectives of the phenomenon of studying. They were the vehicle for answering the question “how do college students study for a course test.” The demographics for all five participants are summarized in Table 1. Next, I describe the setting and the context for this story of college student studying.

General Psychology Course

The General Psychology course was a typical introductory college psychology course that met for three 50-minute lecture sessions a week for 16 weeks in the 1997-98 fall term. Approximately 35 freshman and sophomore students were enrolled in the course. All students were asked to attend and participate in class, take lecture notes, read textbook chapters, complete application problems, and prepare for and take course tests. Course materials included lecture notes, instructor handouts, application problems, and course tests. Lecture topics were structured to help students gain a general understanding of human behavior and mental processes. Specific lecture topics included stress and anxiety, psychological perspectives, perception, consciousness, emotion, conditioning, learning, memory, developmental, abnormal, and physiological psychology. The class lectures were sprinkled with spontaneous interactions initiated by the instructor and students that included questions and examples about course topics.

Students were assigned textbook chapters so they would have background information about lecture topics and an additional reference for learning course material.