UNIVERSITY OF WISCONSIN-LA CROSSE

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I recommend acceptance of this seminar paper in partial fulfillment of this candidate's requirements for the degree Master of Science in Education: College Student Personnel.

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This seminar paper is approved for the College of Education.

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QUALITY OF COLLEGE STUDENT EXPERIENCES AT THE UNIVERSITY OF WISCONSIN-LA CROSSE

A Seminar Paper

Presented to

the Graduate Faculty

University of Wisconsin-La Crosse

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Education:

College Student Personnel

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by

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ABSTRACT

PHELPS, Christine E. Quality of college student experiences at the University of Wisconsin - La Crosse. M.S. in Education: College Student Personnel, 1984. 148 pp. (Dr. Kip Zirkel)

Quality of college student experiences were investigated to assess: 1.) student satisfaction with college, 2.) the extent and proficiency of students' reading and writing skills, 3.) student ratings of various characteristics regarding the campus environment, 4.) students' estimates of gain or progress toward the achievement of objectives in their college education, 5.) differences between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in terms of variables assessed by the inventory, and 6.) differences between responses of students at UW-La Crosse and populations from similar institutions of higher education. The first null hypothesis predicted no significant difference between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in composite test scores. The second null hypothesis predicted no significant difference between responses by students at UW-La Crosse and populations from silmilar colleges and universities. Data was collected via the Pace College Student Experiences questionnaire and distributed to a stratified random sample of 125 full-time UW-La Crosse students from the following groups: 1.) freshmen,

2.) sophomores, 3.) juniors, 4.) seniors, 5.) graduates, and 6.) non-traditional aged students (n=746). Scheffe analysis of variance was performed to identify significant differences between pairs of subgroups to test the hypothesis. The first null hypothesis was rejected as significant differences were identified for 29 of 52 items ($p \leq 0.05$). Results indicate that upperclassmen, graduate, and non-traditional students participated in higher levels of academically oriented activities, indicated more positive relationships with faculty members, and reported more progress toward academic and vocational goals. Underclassmen were more involved with activities related to personal and social development, indicated more positive relationships with fellow students, and reported more progress toward goals related to personal and social growth and interaction. Mean values were determined for the scores of UW-La Crosse students and were compared to composite scores of responses from similar institutions. T values were computed to test the second null hypothesis. The second null hypothesis was rejected as significant differences were identified in 14 of 39 items ($p \leq 0.05$). Results indicate that students at UW-La Crosse reported less progress in the areas of cultural awareness, scientific and technical developments, and the ability to think quantitatively. Students at UW-La Crosse engaged in higher levels of topics of conversation, were more involved with campus housing activities, and athletics and recreation. A significantly higher level of satisfaction

with college, and more positive relationships with fellow students, faculty members, and administrative personnel were found among UW-La Crosse students. Results also indicate that UW-La Crosse students reported more progress toward goals related to understanding themselves and others, functioning as a team member, and developing good health habits and physical fitness. These results are consistent with past research and the literature reviewed, and suggest the need for on-going institutional self-study to better meet the needs of students.

CHAPTER I

INTRODUCTION

There are many problems confronting higher education. Leveling or decreasing enrollments and accompanying financial ramifications, public skepticism, and slowness to innovate, have all led to an era of consumerism. This calls for attention from higher education. Specific areas of concern include accountability of student personnel services, attrition and retention of students, the quality of educational experience, and the effectiveness of programs in higher education. Another concern receiving attention is the effort to increase the desirability and improve the quality of the college experience (Hallenbeck, 1978). Student personnel professionals, student programs, and related experiences significantly influence many of the variables that contribute to the student development process. Miller and Prince (1976) indicated that it is the responsibility of student personnel professionals to work together with faculty and students to improve the quality of the college experience. While in college, students are experiencing various developmental levels. This presents an important challenge for higher education; to design an environment with the potential to encourage and facilitate each student's education and growth.

The development of such an environment requires an understanding of the college setting, including the major variables

found in the interaction of the student and the environment. Student personnel professionals tend to support the issues of campus ecology and environmental intervention. Recently, there has been an abundance of literature written and examined concerning these issues. Many current professionals would like to better understand the way in which students interact with their environment, and manipulate these variables in an effort to assist student development. Since the late 1960s, student personnel professionals have begun to create and implement more developmental programs on their campuses; however, more specific information needs to be gathered and understood before reasonable and effective interventions can be made (Delworth and Hanson, 1980).

Current student personnel services typically assume that students are confronted with certain identifiable developmental needs during their college years (Chickering, 1969; Parker, 1974). Research suggests that there may be a common set of student needs; however, the priority of student needs may shift with changes in age, experience, and social trends (Fullerton and Potkay, 1973; Hitchcock, 1973; Yankelovich and Clark, 1974). Studies that focus on the college experience, and changes in students' needs, growth, and development during college, have the potential to provide institutions with valuable information, vital to the design of a growth-producing environment. It is also important to consider inter-institutional differences regarding the experiences, needs, growth, and development of

students. Colleges differ from one another in many ways; size, affluence, programs, and selectivity. A profile of campus life at the institution, compared to that of similar institutions, may offer additional data useful to the planning or modification of programs and services in an effort to better meet the needs of its individual students.

STATEMENT OF THE PROBLEM

This study attempted to assess the "quality of effort" (Pace, 1979) or personal investment UW-La Crosse students have made in the utilization of facilities, services, and opportunities at the institution.

This study will also provide various demographic information about the students and their college status. Specifically, the study will attempt to answer the following questions:

1.) How staisfied are students with college in general?

2.) What is the proficiency level of students' reading and writing skills?

3.) How do students rate the physical characteristics of the UW-La Crosse college environment?

4.) What are students' estimates of gain or progress toward the achievement of objectives in their college education?

5.) What differences exist between the six subgroups (freshmen, sophomores, juniors, seniors, graduates, and non-traditional students) in terms of variables assessed by the inventory?

6.) What differences exist between responses of students at UW-La Crosse and populations from similar colleges and universities?

IMPORTANCE OF THE STUDY

This study is designed to provide UW-La Crosse with significant data that will be useful in decisions to incorportate or modify programs and services. Such information includes:

1.) A description of campus life at the institution. Student involvement with college activities such as library usage, campus clubs and organizations, "Personal experiences," and "experiences with faculty" were assessed.
2.) Current data regarding students' personal investment in their education.
3.) Data indicative of the quality of student experiences and education at UW-La Crosse.
4.) Information useful to the potential understanding of the students' education and development during the college years.

Possible uses of the information may include:

1.) Enhancement of institutional direction and accreditation review.
2.) More effective self-examination, evaluation, and research.
3.) More effective student recruitment and retention.

4.) Increased accountability for student personnel services and student activities.

The College Student Experiences questionnaire (Pace, 1979) is a systematic, conceptually based, comprehensive inventory of how college students spend their time utilizing the facilities and opportunities for learning and development offered at UW-La Crosse. The pragmatic scope of the activities included in the questionnaire give it special value. Many of the activities reveal how students use facilities in which the institution invests a great deal of time, effort, and money. This information is particularly useful to personnel who manage the facilities. Also, the specificity of the activities suggests where to focus attempts to stimulate increased utilization. Many of the activities regarding interpersonal associations mentioned in the questionnaire may have relevance to the concerns of student personnel professionals.

Education requires an investment of time and effort by the student. The college experience is an accumulation of the events that occur in the college environment through the various facilities and opportunities provided for them. This study attempts to assess the students' "total college experience," in this respect. Some of these major institutional investments in education include courses, library facilities, art facilities, scientific and technological facilities, athletic and re-creational facilities, student unions, clubs and activities, and residence halls or other college housing.

Other important college experiences include contact with faculty members, acquaintances and relationships with other students, experiences related to self-awareness and self-development, involvement in clubs and organizations, writing experiences, topics of discussion among students, and the informational content and level of student conversations.

Education can be viewed as both a process and a product. However, when educational programs are evaluated, education is typically thought of as a product, i.e., knowledge acquired, skills improved, attitudes and values modified, and personal traits developed (Pace, 1984). The implication is that the most important goal for higher education is skills development. College experiences also encourage and facilitiate growth in other areas; social, emotional, intellectual, spiritual, psychological, and physical development. In general, faculty tend to emphasize content while student personnel professionals tend to emphasize process. Unfortunately, educational processes are typically evaluated by what they contribute to the product in terms of what the desired outcome may be: more learning or higher test scores.

It is agreed that some products or outcomes are better than others; therefore, it is also conceivable that some processes or experiences are better than others, regardless of their outcome. Developing an outline from lecture notes is probably a better educational experience than memorizing facts in a text book. The intellectual level of the first activity

is significantly higher than that of the second activity. The value of the experience is inherent in the experience itself, regardless of whether it leads to a higher test score. Therefore, in the evaluation of educational programs, it seems critical that the quality of the educational process or experience be considered (Pace, 1984).

Institutions of higher education are accountable for many things. They are accountable for resources, facilities, programs, stimuli, and standards that they provide for student learning and development. Students are also responsible for many aspects of their educational experience. The amount, scope, and quality of effort that they invest in their own learning and development, as well as the utilization of facilities and opportunities that are available to them in the college setting are some of these responsibilities. Accountability for achievement and related student outcomes must take into consideration what the institution has to offer, as well as how the students choose to use those offerings. Students are aware of their responsibility - when asked, approximately 95 percent of the college students throughout the country agreed with the following statement: "If students expect to benefit from what this college or university has to offer, they have to take the initiative" (Pace, 1979, 1983). This view coincides with a basic assumption of the student personnel profession developed by the American Council on Education (1937, 1949). At this time, it was suggested that the major

responsibility for a student's growth lies with the student, and his or her own resources. From extensive research in this area, Pace (1982) has concluded that the elements that influence who attends college are important; however, once the students get there, what seems to count most is not who they are or where they are, but what they do.

An important goal of the student personnel profession is to design and implement programs and activities that have the potential to foster student growth and development. In an effort to assess the quality of education and examine the sources of progress toward the attainment of important educational goals, the College Student Experiences Questionnaire was developed in 1979 by C. Robert Pace (Pace, 1979). Approximately 100 institutions of higher education have administered this instrument. According to Pace, research has demonstrated the importance of the college environment in portraying the institution's purpose, providing incentives for desired student behavior, and encouraging relationships among students that tend to actualize or achieve those purposes and incentives.

HYPOTHESES

The following null hypotheses were examined in this study:

There will be no significant difference between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in composite test scores.

There will be no significant difference between responses by students at UW-La Crosse and populations from similar colleges and universities.

DEFINITION OF TERMS

Ecology. The study of the interaction between organism and environment (Banning, 1978).

Campus ecology. The interaction between college students and their campus environment (Banning, 1978).

Comprehensive college and university. Institutions with a greater range of offerings than liberal arts colleges; masters or first professional degrees in one or more fields; and the absence of doctoral degrees or advanced professional degrees.

Environmental milieu. The surrounding nonpsychological environment, physical and independent of behavior and perceptions (Barker and Wright, 1968).

Full-time enrolled student. Any person officially enrolled at the undergraduate level for at least 12 credits, and any person officially enrolled on the graduate level for at least nine credits, at UW-La Crosse.

Non-traditional student. Any person officially enrolled at the undergraduate level who is age 25 or older.

Quality dimension. The level of cognitive effort, with higher levels contributing more to the acquisition of knowledge and understanding.

Underclassman. Any person officially enrolled at the freshmen level who has completed at least one semester of college and less than 30 credit hours; and any person officially enrolled at the sophomore level who has completed less than 60 credit hours.

Upperclassman. Any person officially enrolled at the junior level who has completed less than 90 credit hours; and any person officially enrolled at the senior level who has completed less than 120 credit hours.

RELATED LITERATURE

There are two major theoretical areas of importance to student personnel professionals, student development and educational environments. A great deal of research conducted during the last 20 years has documented the importance of the college environment and college experiences in facilitating students' learning and development. In order to better understand how students learn, grow, and develop, a basic familiarity with student development theories is essential. Also, the importance of educational environments and their impact on students must be recognized. An understanding of developmental theories can serve as a foundation to design environments that will better meet the needs of students. To ease presentation of the related literature section, it is organized to present an overview of student

development, a review of five basic student developmental theories, and the concepts of campus ecology and campus design.

Student personnel professionals are encouraged to create a balance of challenges and supports to encourage student development. Beginning with Paterson (1928), and re-emphasized in The Student Personnel Point of View (American Council on Education, 1937), student personnel professionals have adopted a developmental orientation. This orientation stresses the following: 1.) consideration of each individual student as a whole person or organism, 2.) attending to individual differences, and 3.) working with students at their specific level of development.

There is no single comprehensive student development theory. Astin (1977) defines student development as a formal and informal cognitive and affective educational process. This process exists to provide a non-threatening environment in an attempt to humanize the educational experience. It is hoped that this will allow students to meet their needs and maximize their potential for success. Student development theories seem to cluster into five categories, with each group sharing basic assumptions and similar constructs to describe development. The five categories include the following theories: 1.) psychosocial, 2.) cognitive developmental,

3.) maturity, 4.) typology, and 5.) person-environment interaction.

Psychosocial Theories

Psychosocial theorists (Erikson, Chickering, Katz, Kenison, Sanford, Levinson, Gould, Neugarten, and Valliant) suggest that individuals develop through a sequence of stages that define the life cycle. Development follows a chronological sequence. At certain times in life, aspects of one's personality emerge as a central concern that must be addressed. These models present a view of the most basic identity issues and tasks of students (Knefelkamp, 1980).

Psychosocial theories are built mainly on the work of Erikson. He describes the problems, decisions, and issues that college students face. Erikson suggests that psychosocial development covers eight phases of the life cycle, and he describes the central issues for each stage. According to Erikson (1969) development emerges from the interaction of the individual in a social context. The identity process is seen as an integration of many complexities within the individual, and this process requires that the student experience the following: 1.) role experimentation, 2.) meaningful achievement, 3.) the freedom to choose activities and experience the consequences of those choices, and 4.)

time and encouragement for reflection (Widick, Knefelkamp, and Parker, 1980).

Chickering's work relates Erikson's identity stages to college students and their environments. Chickering presents seven major vectors of student development which he relates to several major components of the typical college environment. According to Chickering (1968), the major components of environmental influence include the following: 1.) clarity and consistency of the institution's objectives, 2.) size of the institution, 3.) curriculum, teaching, and evaluation, 4.) residence halls, 5.) faculty and administration, and 6.) student culture. Psychosocial models may provide standards for evaluating and modifying existing programs and services within a college environment, as well as guidelines for designing future programs (Knefelkamp, 1980; Widick, et al., 1980).

Cognitive Developmental Theories

Cognitive developmental theorists (Piaget, Kohlberg, Perry, Harvey, and Hunt) describe development from a different perspective. These models focus on how students think, how they receive and interpret information, and how they make meaning of the learning process in the classroom. Development is viewed as a series of irreversible stages which involve changes in the individual's perception and

reasoning. This theory suggests that as individuals encounter problems or ideas that result in cognitive conflict, they change their way of thinking to a more adequate form (Knefelkamp, et al., 1978). In attempting to work with students using a cognitive developmental perspective, student personnel professionals would try to assess how students think about particular issues, and how the environment challenges or supports such thinking (Widick, et al., 1980).

Maturity Models

The maturity models of student development assume that the whole person cannot be divided into "parts" for individual examination. The underlying concept of these models is based on a holistic and interactive nature of development. The maturity theorists (D. Heath, 1968; Loevinger, 1976) state that the various areas of development (intellect, interpersonal relationships, values, self-concept) do not exist separately from one another. Movement toward maturity in one area can affect development in another. D. Heath (1968) provides extensive data on the changes students go through, and his research indicates a particular pattern of maturational change that occurs in a college setting. Intellectual growth occurs first, followed by interpersonal and intrapersonal development. Heath's work

may encourage student personnel professionals to take this pattern of growth into account when designing student services programs (Knefelkamp, 1980; Widick, et al., 1980).

Typology Theories

Typology theories suggest that individual differences such as cognitive style, temperament, or ethnic background interact with development. Psychological typologies characterize differences in the way individuals perceive and respond to situations. Some typologies focus on cognitive style (Witkin, 1962), while others emphasize personality functioning (Myers-Briggs, 1962). Roy Heath's model of temperamental differences (R. Health, 1964) is one of the few typologies derived in a college setting. This model describes the interaction of individual differences and psychosocial development. His model offers important information for designing programs constructed to provide challenge and support targeted to specific student populations. R. Heath suggests that there are three basic personality types capable of moving along a continuum toward an idealized description of maturity; these include low, medium and high maturity levels. The three types of students tend to respond to different sources of support and challenge for growth. In order to provide balanced,

development-enhancing challenges and support, an understanding and identification of each personality type is essential (Knefelkamp, 1980; Widick et al., 1980).

Person - Environment Interaction Theories

In the final student development model to be presented, person-environment theories suggests that development is facilitated by an environment that provides the appropriate balance of challenge and support (Sanford, 1966). A great deal of research conducted during the last two decades has documented the importance of the college environment in facilitating student's learning and development. Much of this documentation was made possible by instruments designed to characterize the environment, specifically the College Characteristics Index by Pace and Stern (1958) and the College and University Environment Scales (CUES) by Pace (1963, 1969). These instruments attempted to characterize the "psychological climate" of the campus. Some studies have concluded that the college environment has little impact on student achievement; however, these studies have usually considered the physical and economic environment (size, tuition, faculty-student ratio) rather than the psychological environment. Learning and development are psychological phenomena, not physical or economic phenomena (Pace, 1984).

More attention is being given to the college environment because it is often more realistic and effective to modify

programs which are having a negative impact than to expect students to adjust to them (Banning, 1980; Banning and Kaiser, 1974; Hanson, 1978; Morrill, Oetting, and Hurst, 1974). Some of the most extensive research in the study of environments has been conducted by Moos (1973b). He found that there were three typical elements in most environments: 1.) personal development or goals, 2.) interpersonal relations, and 3.) organizational elements. There are also several aspects of the environment that influence human functioning. According to Moos (1976) and similar to Stern (1968, 1970) the perceived environmental climate exerts a directional influence on behavior. Satisfaction, self-esteem, and personal development are influenced by the environmental climate in which individuals live and function (Insel and Moos, 1974). Moos (1976) classifies the variables into two groups, physical environment and social/psychological environment. The physical environment includes weather, geography, and the architectural environment. The social and psychological environment includes behavior settings, social climate, and organizational structure.

Theoretical formulations by Mischel (1968) and studies by Douglas (1964), Friedlander and Greenberg (1971), Moos (1973b), and Wolf (1966) suggest that environmental properties may account for more of the variance in behavior than measures of trait qualities, biographic, or demographic data (Insel and Moos, 1974). To understand behavior, the environmental context or situation within which the behavior occurs must be understood

(Walsh, 1978). Brunswick (1949, 1952) has stated that similar behaviors within different environmental settings have different meanings. Similarly, Lewin (1936) has indicated that the setting, environment, or situation is as important as the individual, and both must be studied to understand behavior.

Recently, there has been a substantial increase in the research of person - environment interaction. Some of this research has been related to stated theoretical approaches. As with student development, there is not a general, comprehensive theory to describe person - environment interaction. Five theoretical viewpoints were selected to be reviewed in this section: 1.) Behavior Setting Theory, 2.) Environmental Press and Personal Needs Approach, 3.) Person - Environment Transactions, 4.) Subculture/Human Aggregate Approach, and 5.) Social Ecological Approach. Considerable research related to the five different models has been conducted using college student populations

Behavior Setting Theory. In the first model, Barker (1968) suggests that behavior settings select and shape the behavior of the people who inhabit them. Individuals tend to behave in similar ways in certain environments, regardless of individual differences. Therefore, human environments seem to have a coercive influence upon human behavior (Walsh, 1978). A behavior setting includes four factors: 1.) physical components, 2.) overt behaviors, 3.) temporal properties, and 4.) the relationship between behavioral and non-behavioral

factors (Gump, 1971; Moos, 1976). According to Barker (1968), there is an association between the number of individuals in a behavior setting, and the frequency, intensity, origin, and termination of forces that impinge upon these individuals. Barker suggests that individuals in underpopulated or small behavior settings tend to be more productive, more involved, and more satisfied than individuals in overpopulated or large settings (Barker, 1968; Wicker and Kirmeyer, 1976; Willems, 1967, 1969).

Environmental Press and Personal Needs Approach. A second model that attempts to describe person-environment interaction is based on Stern's theoretical approach. His work was influenced by Lewin (1936) who contended that scientific psychology must consider the whole situation, both person and environment (Walsh, 1978). The three main assumptions of this model include the following: 1.) behavior is a function of the relationship between the individual and the environment, 2.) psychological significance of the individual may be inferred from self-reported behavior, and 3.) the psychological significance of the environment may be inferred from behavioral perceptions (Walsh, 1973, 1978; Stern, 1964). Stern (1970) presents two aspects of the person-environment relationship. A congruent relationship will produce a sense of satisfaction and fulfillment. An incompatible relationship may result in discomfort or stress. The second aspect relates to the amount of personal growth possible for an individual in an environment. Stern labels this concept "anabolic-catabolic:" an anabolic

setting stimulates self-actualization, while a catabolic setting hinders self-actualization (Huebner, 1980).

Person - Environment Transactions. A third approach for understanding environmental influences has been presented by Pervin (1968). His main hypothesis is that individuals perform better and are more satisfied in environments that tend to reduce the discrepancy between their perceived actual selves, and their ideal selves. This phenomenologically-oriented theory suggests that there are interpersonal and non-interpersonal environments that match the individual's self-perception. A match between an individual and the environment contributes to higher performance and satisfaction, and less stress. A poor match decreases performance, and increases dissatisfaction and stress. Pervin also suggests that the congruence between the individual and the environment should not be exact, rather it should provide opportunities for change and personal growth (Pervin, 1968).

Subculture/Human Aggregate Approach. The environment may also influence individuals through the composition of the human aggregate. The major defining characteristic of an environment can be found in its inhabitants; their behavior, attributes, goals, etc. John Holland (1966, 1973) has done extensive research using this approach, and his theory suggests that human behavior is a function of personality and environment. He describes the environment based on self-reported vocational preferences, academic majors, or occupations within a

population. Evidence indicates that members of a specific vocational group tend to have similar personalities, histories of personal development, and will tend to respond to similar situations in similar ways (Holland, 1973; Walsh, 1973). Based on this research, personality may be characterized by vocational choice or preference. Holland also suggests that individuals tend to choose environments consistent with their personality types, and congruent person-environment interactions are related to self-reported personal and vocational satisfaction, stability, and achievement (Holland, 1966, 1973).

Social Ecological Approach. In the final model to be presented, Moos (1974) suggests that environments have unique personalities. There are two basic assumptions to Moos' approach. First, psychosocial qualities of an environment may be inferred from behavioral perceptions. Secondly, environmental perceptions influence one's behavior in that environment. Moos' approach is based on the theoretical contributions of Murray (1938), Lewin (1936), and Stern (1964, 1970). His approach suggests that three common dimensions tend to exist in social environments: 1.) personal relationships, 2.) personal development, and 3.) system maintenance and change (Moos 1974; Insel and Moos, 1974). The relationship dimension measures the degree of involvement and support within the environment; the personal development dimension measures the potential for personal growth and self-esteem within the environment; and the third dimension measures the degree to

which the environment is orderly, clear in its expectations, and responsive to change. According to Moos (1974), these three categories must be present to gain an adequate and complete profile of the environment. Research indicates that environmental climate influences satisfaction, self-esteem, and personal development (Insel and Moos, 1974). In sum, perceived environments seem to influence behavior, physiological health, and psychological well-being (Walsh, 1978).

Summary of Person - Environment Interaction Theories

The five theoretical approaches presented to study person-environment interaction and environmental impact represent some of the most useful models developed. Person-environment congruence is a major tool used to predict behavior and understand the person-environment relationship. A good match between individuals, their needs, attitudes, goals, and expectations, and the environment; its demands, supports, and the characteristics of its inhabitants, is thought to have a positive impact on the individual. An optimally congruent or compatible person-environment match increases satisfaction, productivity, performance, achievement, and personal growth; while too much discrepancy creates stress. Not surprisingly, individuals tend to seek environments more congruent with their personal qualities. A refinement of this proposition has been made by Pervin and other theorists; however, it has not been investigated in reported research. This refinement concerns the differential impact of maximal/perfect congruence versus

optimal/imperfect congruence. There is some support for the idea that a degree of incongruence enhances personal growth, and is preferred over a perfect fit between person and environment (Huebner, 1980).

SUMMARY

A familiarity with student development theories is a vital component of the student personnel profession. Specifically, these theories attempt to clarify the following issues: 1.) how development occurs, 2.) how institutions influence student development, 3.) what developmental changes occur in college students, and 4.) how can student development be used and directed. Student development theory has other uses as well. It can facilitiate data organization in order to accomplish important tasks, help explain and provide a rationale for the student personnel profession, aid in daily decision-making, and improve the planning and design of student services programs.

Perhaps the most important use of developmental theory is in needs assessment. Accurate assessment of student needs is a prerequisite to effective program planning (Evans, 1982). The psychological theories (Chickering, 1968; Erikson, 1968; D. Heath, 1965; R. Heath, 1964; Levinson, 1978; Sanford, 1962) are particularly relevant in the identification of students' needs. These theories focus on areas in which development occurs, and various issues that individuals face. Once student needs have been assessed, college environments can be

modified or redesigned to better meet the needs of students in an effort to facilitate student growth and development.

ECOLOGICAL PERSPECTIVE

The influence of the environment on behavior has been studied by researchers for many years. Lewin (1936) suggested that behavior is a function of the interaction of the individual's characteristics and the qualities of the environment. It was not until the mid 1970s; however, that documentation of the interaction between person and environment was recorded (Huebner, 1980). The "ecological perspective" is concerned with the impact of the campus environment on students, and the way in which students and the environment interact (Banning, 1973). According to Banning (1973), the ecological or ecosystem perspective can be considered a new approach in dealing with student development issues.

The ecosystem approach is primarily concerned with the design of campus environments which "potentiate students as physical, mental, social, and spiritual beings" (Kaiser, 1972a). An attempt to reduce student problems is made through treatment of the environment, rather than through treatment of individual students (Kaiser, 1972b). This is a proactive approach, focused on designing a campus environment to meet the needs of its members, instead of encouraging students to adjust to existing environments (Hueber, 1979).

Attempts to describe and compare college campuses began with the work of Stern and his colleagues (Pace and Stern, 1958; Stern, 1964). Stern (1970) developed instruments to measure

concepts of personal need and environmental press (Murray, 1938) in educational settings. He studied the relationship of these concepts to factors such as student satisfaction and achievement. Many researchers have investigated the influence of the college environment on students, and have developed theories to explain these influences. Those mentioned in the previous section include Barker, Stern, Pervin, Holland, and Moos. Others include Astin (1968) and Clark and Trow (1966). The general concensus of these theories is that the extent to which students' characteristics and needs are congruent with their environment directly affects their satisfaction, happiness, and achievement. Theory provides guidelines as to what components of the environment should be investigated (Evans, 1983).

Western Interstate Commission for Higher Education (WICHE)

The ecological perspective received strong support through the writings of the Western Interstate Commission for Higher Education (WICHE) (Aulepp and Delworth, 1976; Kaiser, 1972a; 1972c; WICHE, 1973). Several WICHE Task Forces reported mismatches between campus environments, structural organizations, and the needs and desires of campus members (WICHE, 1973). They advised that high priority be given to building environments and structural organizations to coincide with student developmental needs and the needs of faculty and staff.

The Western Interstate Commission for Higher Education suggested the following assumptions basic to campus design (WICHE, 1973):

1.) The campus environment includes all physical, chemical, biological, and social stimuli that impinge upon the student.

2.) A transactional relationship exists between students and their environment, i.e., students shape the environment and are shaped by it.

3.) Environmental design focuses upon properties of the campus; however, students are viewed as choice-making agents who may resist, transform, or nullify environmental influences.

4.) The campus should be intentionally designed to provide opportunities, incentives, and reinforcements for student growth and development.

5.) Students will attempt to cope with the environment in which they are placed. If the environment is not compatible with the students, they may react negatively or fail to develop desirable qualities.

6.) There must be an attempt to design campus environments to accommodate the wide range of individual differences found among students.

7.) Every campus has a design even though administration, faculty, and students may not have planned it, or be aware of it. Design technology is useful for the analysis of existing campus environments and the creation of new ones.

8.) Successful campus design depends upon the participation of students, faculty, staff, administration, and trustees or regents.

RESEARCH

While the reports of the WICHE Task Force on Campus Ecology developed the concept of campus assessment and redesign, a comprehensive, detailed methodology for implementing such activities was needed. In response to this, several models were developed as guides, including one by Huebner and Corazzini (1978) and another by Aulepp and Delworth (1976). These models presented detailed discussions of the assessment process, specifically the formation of a planning team and the development of assessment instruments. Fawcett, Huebner, and Banning (1978) presented a model for a campus ecosystem "design center" to coordinate campus-wide assessment and intervention efforts. Baird and Hartnett (1980) also examined assessment methodology in depth, focusing on the use of standardized assessment materials. Specific models for use in campus units such as housing have also been developed (Daher, Corazzini, and McKinnon, 1977; Schuh, 1979), as well as models for use in campus-wide data collection and intervention (Conyne, 1975; Treadway, 1979). Others have investigated the environment of a medical school (Huebner, Royer, Moore, Cordes, and Paul, 1979), an academic department (Huebner, 1975), and a dean of students office (Hurst and Ragle, 1979).

Potential Contributions of Environmental Assessment. Environmental assessment has great potential for student affairs and student personnel professionals, particularly during periods of accountability and declining resources. Possible contributions include the following:

1.) Environmental assessment can be a powerful change strategy. The method offers specific information which enables the design of interventions, and supportive data to convince administrators of the necessity of programs and services.

2.) Environmental assessment can be adapted for use in many different kinds of situations and settings.

3.) The approach of environmental assessment and redesign can enhance the status and functional role of student affairs and student personnel professionals. With appropriate publicity, environmental assessment projects suggest that the student affairs staff are engaged in important research endeavors, are proactive, and are interested in the mission of the university.

4.) Environmental intervention, as opposed to working with unhappy students individually, allows student personnel professionals to do more with fewer resources, especially on large campuses.

5.) Environmental assessment techniques have the potential to be particularly useful when combined with developmental theory. Theory allows professionals to become more aware of what developmental changes to expect in students; environmental assessment provides a technique to determine whether the environment is encouraging these outcomes. Through identification of specific environments and environmental conditions that lead to positive changes in the cognitive, social, and intrapersonal aspects of students' lives, and recreating these conditions in other situations, the likelihood that the quality and meaningfulness of students' college experiences can be enhanced will be increased (Evans, 1983).

Model for a Growth Producing Environment. A tentative model for a growth producing environment and the evaluation of campus environments is offered by Blocher (1974). Blocher has outlined the basic conditions of a potent learning environment from the combined results of the following studies:

1.) The research of Kohlberg and associates on moral development (1972) which focused upon conditions necessary for stage changes within his six stage schema.

2.) The work on ego development by Loevinger (1976) and her associates which focused upon cognitive growth as total personality development.

3.) The research of Harvey, Hunt, and Schroder (1961) which centered around the effects of learning environments on conceptual levels and belief systems.

4.) The work of Perry (1968) on cognitive growth in college years.

Findings of these studies indicate that there are at least seven important elements within a learning environment that encourage and sustain student growth and development. These elements contribute to structural change which Loevinger (1976) describes as the acquisition and maintenance of new thought patterns, feelings, and behavior that are qualitatively different than previous patterns. Structural change can be considered a major component in overall personality development (Blocher, 1978). The seven conditions for growth considered to be vital elements in a learning environment include the following:

1.) involvement, 2.) challenge, 3.) support, 4.) structure, 5.) feedback, 6.) application, and 7.) integration. These key elements attempt to specify conditions needed in an educational environment to encourage personal and cognitive growth (Blocher, 1978).

In an effort to further explain the organization of a learning environment, Blocher (1974) describes three major subsystems of an educational setting. These include: 1.) the opportunity subsystem, 2.) the support subsystem, and 3.) the reward subsystem. These three components have the potential to provide optimal levels of the seven conditions mentioned above.

The opportunity subsystem provides task structures within the educational environment. It involves formal learning tasks such as readings, reports, tests, and experiments. Social psychological elements are also emphasized by the opportunity to fulfill self-enhancing roles of leader, tutor, critic, and evaluator. It is through these roles and tasks that the conditions of involvement and challenge are provided in the environment. Lastly, the opportunity structure provides reflective, introspective learning situations which encourage integration (Blocher, 1974).

The support subsystem provides the conditions of structure and support. Structure provides a system or framework to process and organize information. Cognitive frameworks attempt to reduce the complexity, ambiguity, and abstractness often

created by high levels of stimulation. Support is based on the assumption that the student is an individual at risk, and also vulnerable. Therefore, the support subsystem is designed to provide emphatic, caring, and honest relationships to promote growth and well-being (Blocher, 1974).

The reward subsystem is concerned with the conditions of feedback and application. In higher education, effective rewards are intrinsic as well as extrinsic. Feedback offers the student continuous and accurate information regarding academic performance. When levels of ego-involvement are high, feedback about improved performance will tend to be more intrinsically rewarding. Application provides the student an opportunity to acquire intrinsic rewards in natural settings, such as a work or internship experience (Blocher, 1974).

These three subsystems offer a tentative model to follow in the assessment of educational environments. As further research is made, Blocher (1974) feels that it may be possible to develop an ecology of student development to serve as the foundation for the student personnel profession.

Erwin and Delworth Study

A study by Erwin and Delworth (1982) was conducted to provide information regarding the interaction between identity development, and the college environment as perceived by the student. An outstanding barrier in needs assessment is the difficulty in obtaining valid, reliable, and easily scoreable

instruments. Two measurement techniques were used in this study, the Erwin Identity Scale (EIS), and the environmental referent (ER). The EIS is considered a promising instrument which meets psychometric criteria and is easily used (Erwin and Delworth, 1980; Erwin and Schmidt, 1982). Environmental referents are self-report statements used in the ecosystem model (Aulepp and Delworth, 1976) to provide descriptions of what is perceived as happening in the student's environment. Erwin and Delworth (1982) suggested that these environmental descriptions may be useful in suggesting what affects a student's identity as measured by the EIS. They felt that such data should be congruent with scores on the EIS.

The EIS is an objectively scored instrument designed to measure the student development concept of identity based on the theories of Chickering (1969) and Erikson (1958, 1968). Three sub-scales comprise the EIS: confidence, sexual identity, and conceptions about body and appearance. These sub-scales reflect the three components of identity presented by Chickering (Erwin and Delworth, 1982).

The ER is a measurement technique specifically developed for use in ecosystem projects (Banning, 1972; Huebner and Corazzini, 1978). The ER is designed to provide specific data about situations identified as particularly "important" in a positive or negative sense. The typical procedure when using this technique is to obtain written descriptions from students of factors causing them to experience identified situations as

stressful or helpful. Respondents may also be asked to indicate how they have dealt with the situation, or possible improvements. Responses may be analyzed to identify features of the environment that are dysfunctional, as well as those which contribute to successful development (Aulepp and Delworth, 1976). The major function of this assessment technique is to provide data needed to plan meaningful interventions (Huebner, 1980).

Results from this study reveal that the impacts of the academic environment, particularly classroom experiences, and the interpersonal campus environment were reflected by high or low scores on the EIS. The environmental referents in this study outline the importance of these two environments. It is not enough to measure the developmental dimensions of students. Student personnel professionals want to facilitate positive change along these dimensions. It seems that the design or redesign of the campus environment can be planned through strategies focused on classroom experiences and interpersonal groups. For example, students reported the importance of faculty or staff interactions which helped them formulate conceptions about themselves. Retention researchers Pascarella and Terenzini (1980) claim that these staff/student interactions assist in college persistence. The Erwin and Delworth study also showed that classroom challenges caused several students to dip in their confidence during the middle of their first semester. Student service programming should particularly support students during this time. Timing is very important

because in the opinion of the author, students did not need special support in the classroom after the first semester.

In sum, this study presents the necessity and utility of looking at both student development levels and perception of the campus environment in an interactive approach. Erwin and Delworth (1980) conclude that it is necessary to understand where the student is, and what helped or impeded his or her progress in order to design programs and services that will offer optimal potential for facilitating development.

Interventions. Suggestions for interventions by any particular ecosystem project are almost endless. The institution or environment may be the target, as may be the individual or the interaction between the two (Paul and Huebner, 1978). The original goals were to either modify the environment in an effort to reduce or eliminate dissatisfaction or stress-producing qualities; or to create features that will promote and foster optimal student development. Alternatives to consider include the following: 1.) teach students how to better utilize the existing environment, 2.) provide support in dealing with dysfunctional aspects that cannot be modified, 3.) help students identify more congruent sub-environments, and help them move in this direction.

In sum, interventions may be made at a campus-wide level, within subgroup limits, e.g., orientation programs for rural students entering a city university; or at the individual level. Interventions may also be made through administrative edict,

budgetary realignments, programmatic activities, or changes in the physical environment, among others (Huebner, 1980).

The final phase of any ecosystem project should include a reassessment of the effects of changes made, and a continuation of monitoring student-environment interaction. The ecological perspective was developed to be an on-going process, devoted to fostering optimal physical, social, intellectual, and psychological growth through continuous monitoring of the campus ecosystem. The status of the system changes considerably each year. A viable, proactive, holistic approach to student services requires a continuous inflow of new information, and continued efforts to meet the expressed desires and real needs of students (Huebner, 1980).

SUMMARY

Within the ecological perspective, student personnel units are concerned with campus environments designed to provide an optimal fit between students and the educational setting. The basic goal of the design process is to increase the potential of students as physical, mental, and social beings (Fawcett, Huebner, Banning, 1978). Campus ecology is the study of student-environment transactions. Campus design is the "engineering arm" of campus ecology. This concept deals with the intentional design of college environments that facilitate student development (Kaiser, 1978).

As mentioned in previous sections, a student-campus transaction may be a match or a mismatch. A match meets the students

needs and tends to increase satisfaction, achievement, and overall wellbeing. A mismatch fails to meet the students' needs, or demands a response the student cannot give. This often creates a stressful situation for the student. In an effort to create an optimal student-campus match, three primary design dimensions can be identified in a learning environment. Campus settings may be designed to: 1.) compensate for student disability, 2.) facilitate existing student ability, or 3.) potentiate new student abilities. It is encouraged to include all three dimensions in a campus design (Kaiser, 1978). Kaiser (1978) concludes that students may be trained to select environments and sub-environments that provide opportunities, inducements, and positive reinforcements in the desired direction of development.

CHAPTER II

METHODOLOGY

Chapter II presents the methodology utilized in conducting the research, and is arranged to include a section of each of the following: sample, setting, research design, instrumentation, procedure, treatment of data, and delimitations

SAMPLE

An institution with approximately 8,000 students would require a minimum sample of 554 students to enable a 95 percent level of confidence that an estimated proportion obtained from a particular item will be within $\pm$ 0.04 of the true proportion (The ACT Evaluation Survey Service, 1981). A sample size of 750 was selected, and subject selection was obtained from the UW-La Crosse Computer Center using a table of random numbers. The 750 randomly selected names totaled approximately nine percent of the student body. The subjects of the study were a stratified random sample of 125 full-time UW-La Crosse students enrolled during semester two of the 1983-84 academic year. The sample was drawn from the following groups: 1.) freshmen, 2.) sophomores, 3.) juniors, 4.) seniors, 5.) graduate, and 6.) non-traditional students. At UW-La Crosse, student classification is determined by having completed at least the following number of credit hours: sophomores, 30; juniors, 60; and seniors, 90. Four names were unuseable due to unknown

addresses, which resulted in a total sample of 123 juniors, 124 seniors, and 124 non-traditional students to be sent the questionnaire. This comprised an overall research sample of 746 students who were mailed a questionnaire. The initial response rate included 379 students, or 50.80%; the response rate after the first follow-up was 61 students, or 8.18%; the response rate of the second follow-up, which included a second questionnaire, was 90 students, or 12.06%. The final response rate, after two follow-up mailings (in which a second survey was enclosed in the second follow-up) was 530 students or 71.05% of the total sample (Table 1).

SETTING

The research was conducted at UW-La Crosse, a four-year state supported institution of higher education, with a student population in the 1984 spring semester of 8,129 (7,628 undergraduates, 501 graduates). The breakdown of students by classification is as follows: 2,087 freshmen, 1,034 sophomores, 1,062 juniors, 1,040 seniors, 501 graduate students, and 853 non-traditional aged students.

The University of Wisconsin-La Crosse is part of the University of Wisconsin System which consists of 13 four-year and 13 two-year institutions. UW-La Crosse is located in La Crosse, Wisconsin, a city of nearly 50,000 residents, which is the county seat for La Crosse County, population, 90,000.

The University is organized into five academic colleges: Arts, Letters, and Sciences; Education; Health, Physical

TABLE 1

Research Sample Questionnaire Return Rate

Subsample	Subsample n	First Return n	First Follow-up n	Second Follow-up n	Total n	Return Percent
Freshmen	125	66	15	24	105	84.00
Sophomores	125	61	9	16	86	68.80
Juniors	123	62	6	15	83	67.47
Seniors	124	62	13	12	87	70.16
Graduates	125	65	8	10	83	65.60
Non-Traditionals	124	63	10	13	86	69.35
TOTAL SAMPLE	746	379	61	90	530	71.05

Education, and Recreation; Business Administration, and Health and Human Services. There are also four administrative divisions: Executive, Academic Support, Student Affairs, and Business Services. The academic areas house 30 departments that offer 48 majors, 38 minors, and 15 graduate programs. The 67 acre campus has 26 major buildings and a faculty/staff of 1,050.

Data from the ACT Class Profile Service Report (The American College Testing Program Class Profile Report, 1983), provides an evaluation of incoming 1983-84 freshmen to UW-La Crosse. The typical student in this group had an ACT composite score of 19.7, which compares to the national average of 18.8. These figures are based on the national norms of the 1982-83 freshmen class.

The most typical educational major chosen by the students was in the area of health professions, with 22% of the entering freshmen planning to major in this area. The second highest was business and commerce with 20%, followed by computer and information sciences with 12%. Thirty-two percent of the entering freshmen were "very sure" of their educational major, while 47% indicated they were "fairly sure." Sixty-one percent planned to complete a bachelor's degree, while 34% planned to complete at least some graduate school or a professional degree. Seventy-seven percent planned to live on-campus in a residence hall, and 94% identified themselves as caucasian-American (The American College Testing Program Class Profile Report, 1983).

RESEARCH AND DESIGN

The College Student Experiences Questionnaire was designed by Pace (1979) to assess opinions, perceptions, and behavior related to the college experience. The aspects of college life represented in the instrument include major facilities and opportunities found on most college campuses. Three main areas were emphasized: 1.) quality of effort, 2.) college environment, and 3.) self-estimate of gains. Responses for most items utilized a semantic differential activity scale, while a likert-type scale was also used to measure students' perceptions of the college environment at UW-La Crosse. Within each aspect of college experience, the activities are intended to form a scale ranging from activities requiring relatively little effort to ones requiring more effort and initiative. Students are asked to indicate the frequency of their participation in each of the activities during the current school year. Multi-variate analysis of variance was used to compare responses of students at UW-La Crosse with responses of students from similar institutions.

INSTRUMENTATION

The Pace College Student Experiences Questionnaire consisted of a series of questions that assessed how students spent their time during college, and the investment students made in their learning and development at this time. The questionnaire is an eight-page instrument, typically answered in 30-45 minutes. Questions related to seven categories are

contained in the instrument: 1.) background information, 2.) college activities, 3.) conversations, 4.) reading and writing activities, 5.) opinions concerning college, 6.) the college environment, and 7.) "estimate of gains."

Quality of effort is measured by how often, during the current academic year, the student engaged in various activities related to the institutions' facilities and opportunities. The activities in each topic move along a "quality of effort dimension," with some requiring more effort than others, as well as having greater potential for influencing education and growth. The content of each scale is basically homogeneous and hierarchic, similar to a Guttman scale. There are 14 quality of effort scales; seven are related to students' use of major facilities, and seven are related to various opportunities for association and experience. The 14 activity scales and associated quality dimensions are as follows: 1.) classroom experiences, 2.) library usage, 3.) facilities related to the Arts, 4.) facilities related to science/technology, 5.) student union, 6.) athletic and recreation facilities, 7.) residence halls or fraternity/sorority, 8.) experiences with faculty, 9.) clubs and organizations, 10.) experiences in writing, 11.) personal experiences, 12.) student acquaintances, 13.) topics of conversation, and 14.) information in conversations. The 14 quality of effort scales can be viewed as a "battery of tests," intended to promote learning and growth (Pace, 1984).

For each type of activity related to the above scales, students responded by answering "never," "occasionally," "often," or "very often," to indicate their activity during the academic year. The responses were scored by assigning four points for "very often," three points for "often," two points for "occasionally," and one point for "never." The only way to receive a high score was by participating with some frequency in the "higher quality activities," therefore, the score reflects "quality of effort," and experience, not merely its frequency. It was found by Pace (1981) that co-efficient Alpha reliabilities of the scales range from 0.79 to 0.90. Many surveys of college students' experiences, activities, attitudes, and judgments use comparative ratings of this type. If there are significant differences in the way individuals interpret the responses, then inter-institutional comparisons require cautious interpretation (Pace and Friedlander, 1981).

In Pace's College Student Experiences questionnaire, most of the listed activities are explicit enough so that the student can recall reliably if the activity has been engaged in during the past six or seven months (Pace and Friedlander, 1981). The response "never" obviously holds the same meaning for everyone, however, "often" at one institution may not be the same as "often" at another institution. In order to test the extent of divergent meanings, Pace and Friedlander (1981) obtained a second set of responses to seven of the activities from students who had previously

answered the College Student Experiences questionnaire. Pace and Friedlander (1981) used a data base of more than 9,000 students from 30 different institutions to show the total diversity in student responses. Results of this study indicated that there was considerable overlap between what is meant by occasionally, often, and very often. There was also a significant concentration of responses within each category and a clear direction of increased frequency moving from "occasional" to "often," and from "often" to "very often." It was found that the major differences in the meaning of the response categories are related to the topic or specific activity, and given the same topic, the differences between institutions and the differences between groups of students within colleges are minor. Based on the small typical difference for each category and for every activity topic, inter-institutional comparisons can be made and norms can be used with a reasonable degree of fairness and validity.

Comparative responses usually reflect some reference point in the mind of the respondents. Whether an activity is thought to be occasional, often, or very often, presumably reflects an awareness of what is "customary," either in the individual's behavior, or in the behavior of a familiar group. In the College Student Experiences questionnaire, it is assumed that the college peer group is the reference group for deciding whether one's activity is "occasional", "often," or "very often." Furthermore, with respect to most activities,

the terms "occasional," "often," and "very often" signify greater frequency at selective liberal arts colleges, and lesser frequency at the comprehensive colleges, with the doctoral granting universities and less selective liberal arts colleges falling somewhere in between. Finally, it was concluded that inter-institutional comparisons between institutions of a similar type are based on highly homogeneous definitions of frequency categories (Pace and Friedlander, 1981).

The College Student Experiences questionnaire also contains eight rating scales related to important characteristics of the college environment. Five of the scales attempt to measure the extent to which the environment emphasizes certain aspects of student development. The measurement is designed as a seven-point rating scale, with 7 indicating "strong emphasis," and 1 indicating "weak emphasis." These scales emphasize the following:

1.) The development of academic and intellectual qualities
2.) The development of artistic, expressive, and creative qualities.
3.) The development of evaluative and analytical skills.
4.) The development of vocational and occupational competence.
5.) Personal relevance and practicality of the student's courses.

Three of the scales are directed toward personal relationships within the college environment. On these three seven-point scales of relationships, the positive direction is expressed by such words as "friendly," "supportive," "approachable," and "helpful." The negative direction is expressed by such words as "uninvolved," "alienated," "remote," and "unsympathetic." These scales emphasize the following:

1.) Relationships or associations with other students, student groups, and activities.

2.) Relationships or contact with faculty member(s).

3.) Relationships or contact with administrative personnel and offices.

The rating scales are intended to assess three important qualities of the college environment:

1.) The extent to which the institution emphasizes specific objectives or goals.

2.) The nature and quality of personal relationships within the environment, and the supportiveness of these relationships.

3.) The students' perceptions of the style of organizational operation at the institution.

Most of the research about environments has been based on "collective perception" as the source of knowledge about the "psychological climate." Although collective perception is probably the most valid way to characterize an environment psychologically, Pace (1984) felt that this method would require too many items to ensure satisfactory reliability on the

College Student Experiences questionnaire. Pace's alternative was to ask students to rate the college environment, based on their experiences in it, along a set of characteristics that represented his past research, and research of Moos (Pace, 1984).

The third part of the instrument is designed to measure the students' "estimate of gains." The activities of students, and characteristics of the college environment attempt to compliment each other in ways that encourage achievement toward the objectives of a college education. The third set of measures was comprised of student ratings of progress toward important educational goals. Twenty-one specific goals were mentioned which are often found in literature related to higher education, and have also been used in national studies during the past several decades. These self-reported gains can be viewed as an indication of the extent to which students believe they are achieving important educational objectives.

The instructions of this section are as follows: "In thinking over your experiences in college up to now, to what extent do you feel you have gained or made progress in each of the following respects?" The responses offered are "very little," "some," "quite a bit," and "very much."

The educational goals included in the survey are assigned to five major groups, and are related to the following:

1.) Personal development and social competence.

2.) Science and technology.

3.) General education, literature and arts.

4.) Intellectual skills.

5.) Vocation.

All of the data on the College Student Experiences questionnaire is dependent on the credibility of student self-reports. Student attainment is not objectively measured; students are asked to indicate the amount of gain or progress they feel they have made toward the achievement of various goals. The majority of social science research, and all questionnaire surveys rely on self-reports. Fortunately, there is evidence to support the credibility of such data, specifically the type of data from the College Student Experiences questionnaire. A few examples from past research include the following:

1.) Comparisons of students' self-reported grades with Registrar's records show correlations of at least 0.90.

2.) Adult self-reports regarding many kinds of factual data are typically 90-95 percent accurate.

3.) Student reports of past achievements are highly dependable.

4.) Adult self-reports of recently engaged activities were found to be 85 percent identical with their reports six months later.

There is little reason to doubt the accuracy of student answers to the background information items in the College Student Experiences questionnaire. There is also little reason to doubt student responses to the activities in the quality of effort scales when they indicate that they have "never" engaged

in the activity. Some students may forget their participation in certain activities, therefore, the accuracy of the responses may decrease. However, when activities are specific and clearly described, as in the College Student Experiences questionnaire, student responses can be accepted as accurate and credible (Pace, 1984).

PROCEDURE

The optimal time to implement the Pace College Student Experiences questionnaire is in the Spring of the year, when the institution's academic calendar is approximately 60 to 75 percent completed. Most of the questions are directed toward student activities during the current school year, therefore, waiting until the spring semester is underway should allow students sufficient opportunity to participate in the institution's activities and form opinions about college.

The surveys were ordered from C. Robert Pace, at the Higher Education Research Institute, UCLA Graduate School of Education, 405 Hilgard Avenue, Los Angeles, CA 90024.

A computer printout of names, local addresses, and three sets of mailing labels were obtained from the UW-La Crosse Computer Center for all subjects. Each questionnaire and subject were assigned a matched numerical code to enable identification of non-respondents for follow-up. Questionnaires sent to the non-traditional aged students were specifically coded in order to identify this subgroup. This instrument did not offer an identification response for non-traditional

aged students in the "Background Information Section." Despite use of this coding system, confidentiality was safeguarded through the project.

Each subject was sent the following materials (Appendix A):

1.) A cover letter.

2.) The questionnaire.

3.) Addressed, postage-paid return envelope.

One week after the questionnaire was mailed, a follow-up postcard was sent to all subjects urging them to complete and return the survey as soon as possible (Appendix A3). Approximately four weeks after the initial questionnaire was mailed, a second follow-up was sent to non-respondents. The second follow-up included a different cover letter, another addressed, postage-paid return envelope, and a second questionnaire. This questionnaire was given the same numerical code as the student's initial questionnaire, and in addition was given the letter "B" to indicate that it was enclosed in the second follow-up (Appendix A4). When the questionnaires were completed and returned by the students, they were sent to Intran Corporation in Minneapolis, Minnesota, for processing.

DATA ANALYSIS

Completed questionnaires were sent to Intran Corporation in Minneapolis, Minnesota for processing. Responses and scale scores were recorded, and the results were forwarded to the institution. The Higher Education Research Institute included a summary report of the results for the institution.

For the purpose of this study, all tests for significance were at the 0.05 level. This data was then analyzed by multivariate analysis of variance to compare the responses between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students. The Scheffe test was utilized to determine pairs of groups significantly different at the 0.05 level. Also, the responses of students at UW-La Crosse were compared with the responses of students at similar type institutions using the means and standard deviations of score distributions and composite results. The Higher Education Research Institute also offers the option of a normative report summarizing the accumulated results for different types of institutions.

DELIMITATIONS

1.) This study was delimited to individuals enrolled as full-time students at UW-La Crosse in the spring semester of 1984.

2.) The study was delimited to only second semester freshmen in the freshmen subgroup.

3.) The study was delimited to analysis via identification of the six subgroups (freshmen, sophomores, juniors, seniors, graduates, and non-traditionals) based on classification.

4.) The College Student Experiences questionnaire did not consider facilities or experiences off-campus.

5.) The scope of the College Student Experiences questionnaire was limited to major facilities found on most campuses that most students would or could use.

6.) The College Student Experiences questionnaire included only those activities presumed to be desirable in fostering learning and personal development in directions intended by the college.

CHAPTER III

RESULTS AND DISCUSSION

This chapter presents and discusses the results of the research. The null hypotheses of the study are restated below, followed by a presentation of the results. Finally, there will be found a discussion of the results, categorized into three main sections: 1.) comparison between subroups at UW-La Crosse, 2.) comparison of UW-La Crosse students with students from similar institutions, and 3.) supplemental findings.

NULL HYPOTHESES

(1) There will be no significant difference between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in composite test scores on the Pace College Student Experiences questionnaire.

(2) There will be no significant difference between responses by students at UW-La Crosse and populations from similar colleges and universities on the Pace College Student Experiences questionnaire.

RESULTS

The first null hypothesis was partially rejected ($p \leq 0.05$). A significant difference was found among pairs of groups in 29 of the 52 variables measured by the Pace College Student Experiences questionnaire, indicating a significant difference in 56% of the items (Tables 2-10).

The second null hypothesis was partially rejected ($p \leq 0.05$). A significant difference was found among responses by students at UW-La Crosse and populations from similar institutions in 14 of the 39 variables, indicating a significant difference in 36% of the items (Tables 11-14).

DISCUSSION

To facilitate clear organization of the results, the tables and discussion of the information are categorized by the questionnaire sub-sections as described in Chapter Two. Each sub-section provides a discussion of the results.

The three major categories of discussion are:

1.) Comparison between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in the areas of college activities, reading and writing experiences attitudes about the college environment, and self-estimates of gain.

2.) Comparison between responses by students at UW-La Crosse and populations from similar institutions.

3.) Supplemental findings and a summary of Chapter Three.

(1) COMPARISON BETWEEN SUBGROUPS AT UW-LA CROSSE

College Activities

Scales in the college activities category measured the quality of effort or personal investment that students have made, during the current school year, in various activities. Format for this presentation will be an overview of the results,

followed by a discussion of the college activities scales in which a significant difference was found between groups.

Significant differences were identified between pairs of subgroups in 11 of the 14 scales in the college activities category (Tables 2-4). These scales can be further categorized into three sub-sections:

1.) Academic/intellectual effort (Table 2).

2.) Personal/social effort (Table 3).

3.) Group facilities effort (Table 4).

Academic/intellectual effort. Among the five academic or intellectual activity scales, four indicated a significant difference between subgroups. These scales included library experiences, experiences with faculty, course learning, and science principles.

Analysis of mean values for these activities indicated significant differences between several subgroups. Library experiences and utilization of library facilities, experiences with faculty, and levels of classroom activity intended to promote course learning were higher among upperclassmen, non-traditional and graduate students than underclassmen (Table 2). Analysis of mean scores for the "science principles" activity scale indicated that freshmen had more experience with scientific principles during the current school year than the other subgroups. Overall, upperclassmen, non-traditional, and graduate students invested more time and effort into activities related to academic and intellectual effort compared to underclassmen.

Table 2

College Activities:
Summary of Significant Differences between Subgroups

Academic/Intellectual Effort

1.) LIBRARY EXPERIENCES

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	16.77						
2 Sophomores	17.57						
3 Juniors	18.76						
6 Non-traditionals	19.61	*					
4 Seniors	20.84	*	*				
5 Graduates	23.10	*	*	*			*

2.) EXPERIENCES WITH FACULTY

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	16.64						
2 Sophomores	18.28						
3 Juniors	20.66	*					
6 Non-traditionals	21.10	*	*				
4 Seniors	22.08	*	*				
5 Graduates	24.58	*	*	*			*

3.) COURSE LEARNING

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
2 Sophomores	28.41						
1 Freshmen	28.42						
4 Seniors	29.40						
6 Non-traditionals	29.55						
3 Juniors	29.92						
5 Graduates	31.54	*	*				

Table 2 (Cont.)

4.) SCIENCE PRINCIPLES		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
5 Graduates	8.61						
2 Sophomores	8.93						
4 Seniors	9.06						
6 Non-traditionals	9.22						
3 Juniors	9.84						
1 Freshmen	10.36					*	

Personal/social effort. Among the five activity scales related to personal and social development, three indicated a significant difference between subgroups. These scales included topics of conversation, information in conversations, and art, music, and theater. Analysis of the mean values for the two scales related to student conversations indicated that the informational content and topical level of conversations of upperclassmen and graduate students was significantly higher than that of underclassmen (Table 3). The third scale in the personal and social effort category of college activities that identified a significant difference between groups was the art, music, theater scale. Freshmen participated in activities related to the arts significantly less than seniors.

Group facilities effort. Among the four group facility activity scales, all four indicated a significant difference between subgroups. These scales measured involvement in the areas of dormitory or fraternity/sorority housing, clubs and organizations, the student union, and athletics and recreation.

Analysis of mean scores for dormitory or fraternity/sorority activities indicated that non-traditional and graduate students utilized these facilities significantly less than other students (Table 4). Less than 12% of the non-traditional and graduate students indicated that they currently lived on-campus or in campus housing (Appendix B). Analysis of mean values related to involvement with clubs and organizations, and the student union indicated that freshmen and sophomores

Table 3

College Activities:
Summary of Significant Differences between Subgroups

Personal/Social Effort

1.) TOPICS OF CONVERSATION

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
6 Non-traditionals	26.99						
1 Freshmen	27.78						
2 Sophomores	28.44						
5 Graduates	28.55						
3 Juniors	28.63						
4 Seniors	30.44						*

2.) INFORMATION IN CONVERSATIONS

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	13.62						
2 Sophomores	13.95						
3 Juniors	14.41						
6 Non-traditionals	14.70						
5 Graduates	15.22	*					
4 Seniors	15.54	*	*				

3.) ART, MUSIC, THEATER

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	17.47						
5 Graduates	17.79						
3 Juniors	18.72						
6 Non-traditionals	18.92						
2 Sophomores	19.94						
4 Seniors	20.24	*					

Table 4

College Activities:
Summary of Significant Differences between Subgroups

Group Facilities Effort

1.) DORMITORY OR FRATERNITY/ SORORITY

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
6 Non-traditionals	18.25						
5 Graduates	23.00						
4 Seniors	25.20						
1 Freshmen	25.84						*
2 Sophomores	27.31						*
3 Juniors	28.29						*

2.) CLUBS AND ORGANIZATIONS

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	15.08						
5 Graduates	16.19						
6 Non-traditionals	16.68						
2 Sophomores	18.01						
3 Juniors	20.04	*				*	*
4 Seniors	21.71	*	*			*	*

3.) STUDENT UNION

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	17.03						
2 Sophomores	19.80						
5 Graduates	20.33	*					
3 Juniors	20.44	*					
6 Non-traditionals	20.56	*					
4 Seniors	23.20	*	*				

Table 4 (Cont.)

4.) ATHLETIC AND RECREATION FACILITIES		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
6 Non-traditionals	16.18						
5 Graduates	17.06						
2 Sophomores	18.98						
4 Seniors	19.29						
3 Juniors	19.57						
1 Freshmen	20.37						*

were less involved in both of these areas than upperclassmen, graduate, and non-traditional students (Table 4). Analysis of activities related to student union mean scores indicated a significant difference between five pairs of subgroups. Underclassmen utilized the student union facilities less than upperclassmen, non-traditional, and graduate students (Table 4).

Summary. Significant differences were found between subgroups in 11 of the 14 scales in the college activities category (Tables 2-4). Significant differences between subgroups were found among the following: 1.) four of five intellectual activities related to academic and intellectual effort, 2.) three of five activities related to personal and social effort, and 3.) all four scales related to group facility activities.

It was found that upperclassmen, non-traditional, and graduate students invested more time and effort in academic and intellectual activities compared to freshmen and sophomores (Table 2). With respect to the scales related to personal and social activities, underclassmen indicated lower levels of topical and informational content in conversations, while a significant difference was found between seniors and freshmen in activities related to the arts (Table 3). Results of the scales related to group facilities activities indicated that underclassmen were more involved with campus-related housing, while upperclassmen were more involved with clubs and organizations, and utilized the student union to a greater degree (Table 4). Non-traditional and graduate students

indicated significantly less involvement in athletics and recreation, and the utilization of such facilities (Table 3).

Results of these scales support information found in the review of literature. Pace (1984) found that in the "academic" aspects of college, quality of effort scores typically increase with each successive year of college. Pace (1984) also found that the informational level of student conversations tends to increase with each year of college. Since the majority of underclassmen lived on-campus (a prerequisite for responding to this activity scale), their level of involvement in these activities was significantly higher (Table 4). For freshmen, group interaction revolves around the residence halls, while upperclassmen rely to a greater extent upon campus-affiliated clubs and organizations for social contact. It was also found that upperclassmen, non-traditional, and graduate students participated more in the utilization of the student union than did underclassmen.

Reading and Writing Experiences

Scales in the reading and writing category measured the number of assigned and non-assigned books read by students, as well as the number of essay exams and term papers completed by students in their courses during the current school year. Significant differences were identified between subgroups in 3 of the 4 scales in this category (Table 5). The research found that underclassmen and juniors read significantly fewer non-assigned books than non-traditional and graduate students (Table 5). A significant difference was also found between the

Table 5

Reading and Writing Activities:
Summary of Significant Differences between Subgroups

1.)	NON-ASSIGNED BOOKS		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
	Group	Mean						
	1 Freshmen	2.03						
	2 Sophomores	2.10						
	3 Juniors	2.11						
	4 Seniors	2.47						
	6 Non-traditionals	2.62	*	*	*			
	5 Graduates	2.84	*	*	*			
2.)	ESSAY EXAMS		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
	Group	Mean						
	2 Sophomores	2.44						
	1 Freshmen	2.51						
	5 Graduates	2.67						
	6 Non-traditionals	2.67						
	3 Juniors	2.78						
	4 Seniors	3.17	*	*				
3.)	TERM PAPERS/WRITTEN REPORTS		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
	Group	Mean						
	2 Sophomores	2.17						
	1 Freshmen	2.22						
	3 Juniors	2.42						
	6 Non-traditionals	2.59						
	4 Seniors	2.94	*	*	*			
	5 Graduates	3.05	*	*	*			

number of essay exams given in the senior courses as compared to the courses of underclassmen (Table 5). Twenty-four percent of the seniors indicated writing between 10-20 essay exams in their courses, compared to 11% of the underclassmen (Appendix C). Furthermore, 17% of the seniors participated in more than 20 essay exams, while only 3% of the freshmen and sophomores wrote more than 20 essay exams during the current school year (Appendix C). The third scale in the reading and writing category that identified a significant difference was concerned with term papers or other written reports. The number of term papers or reports written during the current school year was found to be significantly higher among seniors and graduate students, compared to freshmen, sophomores, and juniors (Table 5). Thirty percent of the seniors and graduate students wrote 10 or more term papers or reports, compared to 8% of the freshmen, sophomores, and juniors (Appendix C).

Summary. In all three scales related to reading and writing experiences, the mean scores of underclassmen were significantly lower than upperclassmen, non-traditional, and graduate students. Two main reasons that may account for these differences include the following:

1.) As reported and discussed in the previous section, the academic and intellectual activities of upperclassmen, non-traditional, and graduate students tend to be higher; therefore, they are more likely to read a greater number of non-assigned books.

2.) There are a greater number of objective tests, and fewer written papers assigned on the freshmen and sophomore class levels perhaps because classes tend to be larger, and the course content more general; therefore, objective examinations may tend to be more popular.

College Environment

Several scales in the college environment category measured student attitudes concerning the extent to which UW-La Crosse emphasized various aspects of students' development. Significant differences were identified in three of the eight scales in this category (Table 6). These scales included the following:

1.) The emphasis of esthetic, expressive, and creative qualities.

2.) Student-faculty relationships.

3.) Relationships with fellow students, student groups, and activities.

Analysis of mean scores related to the development of esthetic, expressive, and creative qualities indicated a significant difference between the attitudes of freshmen and graduate students (Table 6). Overall, the scores of upperclassmen non-traditional, and graduate students were lower than the scores of underclassmen (Table 6). Analysis of mean values related to student-faculty relationships indicated that upperclassmen and graduate students had a more positive attitude toward faculty members (Table 6). Eighty-five percent of the

Table 6

College Environment:
Summary of Significant Differences between Subgroups

			Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1.)	ESTHETIC, EXPRESSIVE, AND CREATIVE QUALITIES							
	Group	Mean						
	5 Graduates	4.07						
	4 Seniors	4.26						
	6 Non-traditionals	4.28						
	3 Juniors	4.36						
	2 Sophomores	4.52						
	1 Freshmen	4.78					*	
2.)	FACULTY MEMBERS		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
	Group	Mean						
	1 Freshmen	4.99						
	6 Non-traditionals	5.40						
	2 Sophomores	5.41						
	3 Juniors	5.43						
	4 Seniors	5.46						
	5 Graduates	5.71	*					
3.)	STUDENTS, STUDENT GROUP/ ACTIVITIES		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
	Group	Mean						
	6 Non-traditionals	4.78						
	5 Graduates	5.43						*
	4 Seniors	5.51						*
	3 Juniors	5.69						*
	1 Freshmen	5.80						*
	2 Sophomores	5.98						*

students in these groups placed faculty members on the positive side of the likert-type scale (Appendix C). Analysis of mean values related to relationships with other students, student groups, and activities identified a significant difference between five pairs of subgroups (Table 6). Non-traditional students indicated that they felt significantly less support, friendliness, and belongingness in the college environment compared to the other five subgroups (Table 6).

Summary. In two of the three college environment scales, a similar pattern of responses by subgroups was found. Freshmen, sophomores, and juniors rated the emphasis of esthetic, expressive, and creative qualities more positively. These same three groups indicated that their relationships to other students, student groups, and activities were more friendly and supportive. In contrast, seniors and graduate students indicated better relationships with faculty members (Table 6).

Estimate of Gains

Scales in the estimate of gains category measured the extent to which students felt that they had made progress toward important educational goals. Of 21 specific goals mentioned in the questionnaire, significant differences between subgroups were found in 12 of the items (Tables 7-10). The goals mentioned in the estimate of gains scale can be categorized into four sub-sections:

1.) Vocational training (Table 10).

2.) Intellectual skills (Table 7).

3.) General education (Tables 8 and 9).

4.) Personal/social development (Table 10).

Vocational training. The mean values of students' progress toward the acquisition of skills and knowledge applicable to a specific job or type of work identified a significant difference between subgroups (Table 10). Underclassmen indicated the least amount of progress in this area, while upperclassmen and graduate students indicated the most progress (Table 10).

Intellectual skills. Among the four goals related to intellectual skills, three indicated a significant difference between pairs of subgroups. The items were related to 1.) specialization for further education, 2.) the ability to think analytically and logically, and 3.) independent learning.

Analysis of the mean values for the item designed to measure students' specialization for further education indicated that upperclassmen, non-traditional, and graduate students felt they had acquired more background and specialization for further education in a professional, scientific, or scholarly field than underclassmen (Table 7). Approximately 60% of the underclassmen indicated that they made "very little" or "some" progress in this area, while 70% of the other students indicated that they made "quite a bit," or "very much" progress in this area (Appendix C). This is supported by the results of the previous item regarding vocational training. Analysis of the mean values for the item designed to measure students' self-estimates in their ability to think analytically and logically indicated a significant difference between two pairs of

Table 7

Estimates of Gain:
Summary of Significant Differences between Subgroups

Intellectual Skills

1.) SPECIALIZATION/FURTHER EDUCATION

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
2 Sophomores	2.34						
1 Freshmen	2.35						
6 Non-traditionals	2.77	*	*				
3 Juniors	2.92	*	*				
5 Seniors	2.94	*	*				
5 Graduates	3.09	*	*				

2.) ANALYTICAL/LOGICAL

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	2.51						
2 Sophomores	2.52						
3 Juniors	2.74						
5 Graduates	2.85						
6 Non-traditionals	2.86						
4 Seniors	2.94	*	*				

3.) INDEPENDENT LEARNING

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1 Freshmen	2.90						
2 Sophomores	2.95						
3 Juniors	3.14						
6 Non-traditionals	3.16						
4 Seniors	3.28	*					
5 Graduates	3.39	*	*				

subgroups. The largest discrepency in this item was found between seniors and underclassmen. In general, students' self-estimates in their ability to think analytically and logically increased with each successive year of college. Analysis of the mean scores for independent learning indicated a similar pattern (Table 7). Upperclassmen, non-traditional, and graduate students indicated greater progress with respect to independent learning than did underclassmen.

General education. Among the seven goals related to general education in the estimate of gains category, six identified a significant difference between subgroups. The items included gains in 1.) broad knowledge, 2.) relevant information, 3.) arts, 4.) literature, 5.) clear and effective writing, and 6.) computer usage.

Analysis of the mean values indicated that graduate students reported the least amount of gain toward a broad education while seniors and non-traditional students reported the greatest amount of progress (Table 8). Analysis of mean values for the item designed to assess student progress in gaining information that may be relevant to a career indicated that underclassmen and graduate students reported more progress with respect to this goal compared to underclassmen and non-traditional students (Table 8). The mean values for the item intended to measure students' progress toward an appreciation of the arts indicated that freshmen and graduate students reported the least amount of progress toward this goal compared

Table 8

Estimates of Gain:
Summary of Significant Differences between Subgroups

General Education

4.) BROAD KNOWLEDGE

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
5 Graduates	2.50						
1 Freshmen	2.73						
3 Juniors	2.82						
2 Sophomores	2.83						
4 Seniors	2.91					*	
6 Non-traditionals	2.97					*	

5.) RELEVANT INFORMATION

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
2 Sophomores	2.60						
1 Freshmen	2.62						
6 Non-traditionals	2.92						
4 Seniors	3.04	*	*				
3 Juniors	3.09	*	*				
5 Graduates	3.20	*	*				

6.) ARTS

Group	Mean	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
5 Graduates	1.80						
1 Freshmen	1.96						
3 Juniors	2.06						
6 Non-traditionals	2.19						
2 Sophomores	2.33					*	
4 Seniors	2.39					*	

to the other subgroups (Table 8). With respect to progress toward a greater appreciation of literature, underclassmen reported the least amount of gain in this area, while seniors indicated the most (Table 9). Analysis of the mean values also showed that upperclassmen, non-traditional, and graduate students reported more progress toward the goal of clear and effective writing compared to underclassmen (Table 9). The final goal to be mentioned in the general education section indicated that underclassmen reported the least amount of progress in acquiring a familiarity with computers than did upperclassmen, non-traditional and graduate students (Table 9).

Personal/social development. Among the five goals mentioned in the questionnaire related to personal and social development, two showed a significant difference between subgroups. The items included 1.) understanding others, and 2.) the ability to function as a team member. Examination of the mean values indicated that non-traditional students felt they had made the least amount of progress toward the understanding of others, and the ability to get along with different types of people compared to the other subgroups (Table 10). Similarly, non-traditional students also indicated the least amount of progress in the ability to function as a team member (Table 10).

Summary. The results indicated that underclassmen reported having made the least amount of progress in the areas of vocational training, the development of intellectual skills,

Table 9

Estimates of Gain:
Summary of Significant Differences between Subgroups

7.) LITERATURE		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
1 Freshmen	1.62						
2 Sophomores	2.08	*					
5 Graduates	2.11	*					
3 Juniors	2.17	*					
6 Non-traditionals	2.30	*					
4 Seniors	2.44	*					

8.) CLEAR/EFFECTIVE WRITING		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
2 Sophomores	2.22						
1 Freshmen	2.31						
3 Juniors	2.41						
6 Non-traditionals	2.57						
4 Seniors	2.67		*				
5 Graduates	2.82	*	*				

9.) COMPUTER USE		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
1 Freshmen	1.56						
2 Sophomores	1.94						
6 Non-traditionals	2.06	*					
4 Seniors	2.09	*					
3 Juniors	2.17	*					
5 Graduates	2.19	*					

Table 10

Estimates of Gain:
Summary of Significant Differences between Subgroups

10.) VOCATIONAL TRAINING		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
1 Freshmen	2.00						
2 Sophomores	2.49	*					
6 Non-traditionals	2.67	*					
3 Juniors	2.91	*					
4 Seniors	2.92	*	*				
5 Graduates	3.10	*	*				

Personal/Social Development

11.) UNDERSTANDING OTHERS		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
6 Non-traditionals	2.81						
5 Graduates	3.05						
2 Sophomores	3.07						
4 Seniors	3.08						
1 Freshmen	3.15						
3 Juniors	3.20						*

12.) TEAM MEMBER		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Group	Mean						
6 Non-traditionals	2.42						
2 Sophomores	2.59						
1 Freshmen	2.63						
3 Juniors	2.75						
5 Graduates	2.84						
4 Seniors	2.87						*

and gaining a general education about different kinds of knowledge. These findings coincide with the results of previous sections. Underclassmen invested less time and effort in academic and intellectual activities, read fewer non-assigned books, and wrote fewer essay exams and term papers. Also, the specialization of upper-level and graduate courses may account for these students' higher scores in the areas of progress toward vocational training, specialization for further education, the ability to think analytically and logically, and to learn independently. The results also indicated that there may be a relationship between students' involvement with art, music, and theater facilities, and developing an understanding and enjoyment of the arts. Similarly, students who read more non-assigned books seem to have reported more progress toward an appreciation of literature, and students who wrote more essay exams and term papers felt they had made more progress toward clear and effective writing.

Summary

The first null hypothesis was partially rejected as significant differences were identified in 29 of the 52 variables that compared the responses of freshmen, sophomores, juniors, seniors, non-traditional, and graduate students. Four categories of college experiences were established to discuss the results of the corresponding sections of the College Student Experiences questionnaire: 1.) college activities, 2.) reading and writing experiences, 3.) the

college environment, and 4.) self-reported estimates of gain. To present a more understandable presentation of results, three categories of developmental areas were established: 1.) academic, 2.) personal/social, and 3.) vocational.

Results of these scales support information found in prior research, and in the review of literature. Research suggests that the priority of student needs may shift with changes in age, experience, and societal influences (Fullerton and Potkay, 1973; Hitchcock, 1973; Yankelovich and Clark, 1974). Mean scores on the College Student Experiences questionnaire indicated several significant differences between the responses of subgroups in all four categories of the instrument.

One definition of "quality of effort" or "personal investment in college activities" is the extent to which a student capitalizes on the potential for learning and development (Pace, 1984). In other words, quality of effort can be suggested by the degree to which students utilize the potential inherent in a facility available to them for the purpose of growth and development. Higher scores on the College Student Experiences questionnaire indicate higher intellectual levels because a high score can only be attained by participating with some frequency in the "higher quality" activities. Research shows that development occurs as new experiences are encountered which require new modes of response. There must be some contact, or set of experiences that theoretically reflect increasing levels of involvement, challenge, and support

(Pace, 1984). These experiences are reflected in the quality of students' college activities.

Academic Development. In the academic and intellectual aspects of college, it was found that quality of effort scores typically increase with each successive year of college. This is evident in experiences related to library utilization, contact with faculty, classroom activities, and reading and writing activities (Tables 2 and 5). Students who invested more time and effort in academic activities reported more substantial gains in the academic area (Tables 7-9). Progress related to intellectual skills and general education reported by upperclassmen, non-traditional, and graduate students was significantly higher than gains reported by underclassmen. In sum, progress toward academic objectives indicated the greatest difference between underclassmen and other students. According to Pace (1984) there are usually academic differences between these two cross-sections of students; however, there is little difference between the same students at later periods.

Personal and Social Development. In the personal development aspects of college, investments made by underclassmen in activities related to conversation and the arts tended to be lower than other students (Table 3). However, in some aspects of the college experience, quality of effort scores were not found to be successively higher with each year in college. Research has documented that this is often found with the non-academic aspects of college (Pace, 1984). Activities

related to the utilization of group facilities indicated that underclassmen were much more involved in campus residence experiences and the use of athletic and recreational facilities (Table 4). Research shows that on-campus residents are much more involved in campus activities, and a specific campus activity strongly emphasized on the UW-La Crosse campus is athletics and recreation.* The results found that these same students also rated the esthetic, expressive, and creative aspects of the environment higher, and viewed fellow students, student groups and activities significantly more friendly and supportive (Table 6). In addition, the underclassmen reported significant gain in the personal and social developmental area of understanding others (Table 10). In sum, underclassmen, who are primarily campus residents, showed substantial personal and social development in the area of understanding others. The cause of this development may be found in their involvement with residence hall activities, and athletic and recreational facilities. This supports the finding of Erikson (1969), who stated that development occurs from interaction in a social context.

In contrast, upperclassmen, non-traditional, and graduate students were more involved in higher levels of conversation, and activities related to the arts, clubs, organizations, and the student union than underclassmen (Tables 3 and 4). These students, most of whom lived off-campus, relied upon these

* More than 20% of the total student body at UW-La Crosse is enrolled in the College of Health, Physical Education, and Recreation.

facilities for their personal and social contact and development. These students also experienced more contact with faculty members (Table 2), rated the faculty as more helpful (Table 6), and reported more progress in the ability to function as team members (Table 10). The activities and goals of upperclassmen, non-traditional, and graduate students seem to emphasize the development of knowledge and relationships related to career and vocation.

Vocational Development. Upperclassmen, non-traditional, and graduate students reported the most substantial gain toward the goal of vocational training compared to underclassmen (Table 10). These students also reported significantly more progress toward the acquisition of specialized knowledge for further education (Table 7), and gaining a range of information that may be relevant to a career (Table 8).

Clearly, the results of mean scores related to academic and vocational development support the findings of prior research: Students who aspire to advanced degrees and who get high grades are usually more committed to taking advantage of the opportunities for learning, study, and intellectual content that the college provides.

(2) COMPARISON OF UW-LA CROSSE STUDENTS WITH STUDENTS FROM SIMILAR INSTITUTIONS

Significant differences were identified between responses by students at UW-La Crosse, and populations from similar

institutions in 14 of the 39 items compared in the Pace College Student Experiences questionnaire (Tables 11-14). These items can be categorized into four sub-sections:

1.) College activities (Table 11).

2.) Opinions about college (Table 12).

3.) The college environment (Table 13).

4.) Estimate of gains (Table 14).

College Activities

Among the 13 college activity scales used for comparison, three indicated a significant difference between the responses of students at UW-La Crosse, and populations from similar institutions (Table 11). These scales included experiences related to athletic and recreational facilities, dormitory or fraternity/sorority housing, and topics of conversation. Analysis of t values for these activities indicated that students at UW-La Crosse had significantly higher quality of effort scores in these three areas (Table 11).

Opinions About College

Two items in the College Student Experiences questionnaire comprise the satisfaction index: "How well do you like college," and "If you could start over, would you go to the same college you are now attending?" There are four possible responses to each item, with the most favorable response given four points, and the least favorable response one point. A score of eight indicates that the students said they were enthusiastic about college, and would definitely go to the same college again

Table 11

Comparison Between UW-La Crosse and Populations
from Similar Institutions for Experiences in "College Activities"

Variable[a]	UW-L Sample n	Composite Mean	Composite S.D.	UW-L Mean	UW-L S.D.	t value
1. Topics of conversation	521	24.9	5.6	28.4	5.5	12.50**
2. Dormitory, fraternity/ sorority	198	22.1	7.4	26.0	6.5	8.13**
3. Athletics and recreation	525	16.1	6.4	18.6	6.9	7.59**
4. Library experiences	526	19.7	5.2	19.3	4.9	(1.67)
5. Student acquaintances	528	23.2	6.2	23.7	5.9	1.67
6. Writing experiences	525	24.2	5.9	24.6	5.5	1.43
7. Personal experiences	525	21.8	5.8	22.2	5.9	1.43
8. Faculty experiences	527	19.4	5.4	20.4	5.6	(1.28)
9. Art, music, theater	511	19.1	6.0	18.8	5.5	(1.11)
10. Course learning	524	29.3	5.1	29.5	4.8	0.91
11. Union	527	19.5	5.7	20.1	6.0	(0.71)
12. Clubs/organizations	517	17.7	6.5	17.9	6.7	0.61
13. Information in conversations	524	14.5	3.2	14.5	3.0	0.00

* Significant at $p \leq 0.05$ (Critical t value 1.960)
** Significant at $p \leq 0.01$ (Critical t value 2.576)

[a] Key words listed; see Appendix A for complete statements and scales

(Appendix C). Analysis of t values for these activities indicated that students at UW-La Crosse were significantly more satisfied with college than students at similar institutions (Table 12).

College Environment

Among the eight college environment scales, three indicated a significant difference between the responses of students at UW-La Crosse, and populations from similar institutions (Table 13). Analysis of t values for these scales indicated that students at UW-La Crosse rated their relationships with students, student groups and activities, faculty members, and administrative personnel and offices as being significantly more positive than students at similar institutions.

Estimate of Gains

Of the 18 items analyzed for comparison in this subsection, seven indicated a significant difference between the responses of students at UW-La Crosse and populations from similar institutions (Table 14). Students at UW-La Crosse reported lower estimates of gain or progress in the following three areas: 1) developing an awareness of different philosophies, cultures, and ways of life, 2.) developing an understanding of new scientific and technical advancements, and 3.) developing the ability to think quantitatively.

In contrast, students at UW-La Crosse reported significantly more progress toward the following four goals: 1.) developing an understanding of yourself, abilities, interests

Table 12

Comparison Between UW-La Crosse and Populations
from Similar Institutions for Student Satisfaction with College

Variable[a]	UW-L Sample n	Composite Mean	Composite S.D.	UW-L Mean	UW-L S.D.	t value
1. Satisfaction score	528	6.0	1.3	6.3	1.3	7.50**

* Significant at $p \leq 0.05$ (Critical t valuel.960)

** Significant at $p \leq 0.01$ (Critical t value 2.576)

[a] Key words listed; see Appendix A for complete statements and scales

Table 13

Comparison Between UW-La Crosse and Populations
from Similar Institutions for "College Environment"

Variable[a]	UW-L Sample Mean	Composite Mean	Composite S.D.	UW-L Mean	UW-L S.D.	t value
1. Administration	530	3.9	1.6	4.5	1.5	7.50**
2. Students	530	5.1	1.5	5.5	1.3	6.67**
3. Faculty	530	5.0	1.4	5.4	1.2	6.67**
4. Academic emphasis	530	5.1	1.3	5.1	1.2	0.00
5. Esthetic emphasis	530	4.4	1.4	4.4	1.3	0.00
6. Critical emphasis	529	4.7	1.3	4.7	1.2	0.00
7. Vocational emphasis	528	4.9	1.4	4.9	1.3	0.00

* Significant at $p \leq 0.05$ (Critical t value 1.960)

** Significant at $p \leq 0.01$ (Critical t value 2.576)

[a] Key words listed; see Appendix A for complete statements and scales

Table 14

Comparison Between UW-La Crosse and Populations
from Similar Institutions for "Estimates of Gain"

Variable[a]	UW-L Sample n	Composite Mean	Composite S.D.	UW-L Mean	UW-L S.D.	t value
1. Cultural awareness	526	2.6	0.9	2.4	0.9	(5.00)**
2. Scientific developments	527	2.3	0.9	2.1	0.9	(4.00)**
3. Quantitative thinking	524	2.5	0.9	2.4	0.9	(2.50)*
4. Understanding self	527	3.0	0.9	3.1	0.8	2.50*
5. Understanding others	527	3.0	0.8	3.1	0.8	2.50*
6. Team member	527	2.6	0.9	2.7	0.9	2.50*
7. Health habits/fitness	520	2.4	1.0	2.5	1.0	2.00*
8. Vocational training	527	2.7	0.9	2.7	0.9	0.00
9. Specialization	526	2.7	0.9	2.7	0.8	0.00
10. General education	526	2.8	0.8	2.8	0.7	0.00
11. Arts appreciation	527	2.1	1.0	2.1	0.9	0.00
12. Literature appreciation	527	2.1	0.9	2.1	0.9	0.00
13. Clear/effective writing	527	2.5	0.9	2.5	0.8	0.00
14. Value development	527	2.8	0.9	2.8	0.9	0.00
15. Understanding science	527	2.2	1.0	2.2	0.9	0.00
16. Analytical/logical thinking	527	2.7	0.8	2.7	0.8	0.00
17. Synthesize Relationships	527	2.9	0.8	2.9	0.7	0.00
18. Independent learning	527	3.1	0.8	3.1	0.8	0.00

* Significant at $p \leq 0.05$ (Critical t value 1.960)
** Significant at $p \leq 0.01$ (Critical t value 2.576)

[a] Key words listed; see Appendix A for complete statements and scales

and personality, 2.) developing an understanding of others, 3.) developing the ability to function as a team member, and 4.) developing good health habits and physical fitness.

Summary

The second null hypothesis was partially rejected as significant differences were identified in 14 of the 39 variables that compared the responses of students at UW-La Crosse, and populations from similar public comprehensive colleges and universities. Four categories of college experiences and attitudes were established to present the results of these comparisons: 1.) college activities, 2.) opinions about college, 3.) the college environment, and 4.) estimate of gains.

Results of the research support information found in the review of literature. Chickering (1968) stated that major components of environmental influence include curriculum and teaching, residence halls, faculty and administration, and student culture. Moos (1976) and Stern (1968, 1970) suggested that the perceived environmental climate exerts a directional influence on behavior. Furthermore, they stated that personal development, self-esteem, and satisfaction are influenced by the environmental climate in which individuals live and function (Moos, 1976; Stern, 1968, 1970). Students at UW-La Crosse invested higher quality effort in activities intended to promote personal and social development. These experiences included athletics and recreation, campus residence activities, and topics of conversation. Participation in these activities

may be partially responsible for the increased satisfaction of students at UW-La Crosse.

Students' relationships with fellow students at UW-La Crosse may also be responsible for their higher level of satisfaction. Compared with populations at similar institutions students at UW-La Crosse indicated the following: 1.) relationships with fellow students were more "friendly" and "supportive," 2.) faculty members were more "approachable," "helpful," and "understanding," and 3.) administrative personnel were more "helpful," "considerate," and "flexible." Furthermore, it can be inferred that these experiences and relationships have led to students' self-estimated progress in the areas of understanding themselves and others, the ability to function as a team member, and the development of good health habits and physical fitness.

In sum, students at UW-La Crosse showed higher levels of personal and social development than populations from similar institutions. This growth and development is related to the activities students participated in, and their relationships with fellow students, faculty, and administrative personnel. Furthermore, UW-La Crosse students' higher level of personal and social development is indicated by their substantial gain in related areas. Finally, the students' higher level of satisfaction with college is a reflection of the sum total of these college experiences.

In conclusion, the three items in which UW-La Crosse students scored significantly lower may be interpreted to

demonstrate some needs for improvement or modification at UW-La Crosse. These included: 1.) becoming aware of different philosophies and cultures, 2.) understanding new scientific and technical advances, and 3.) the ability to think quantitatively.

(3) SUPPLEMENTAL FINDINGS

The background information section of the questionnaire offered data which helped to describe students at UW-La Crosse. Sixty percent of the students responded that while attending this college, they had lived in some type of college housing (Appendix B). At the time of answering the survey, 31% of the students lived in a residence hall, less than 1% lived in a fraternity or sorority, 28% lived in a private apartment "near" campus, 29% lived in an apartment or house "away" from the campus, and 11% of the students indicated that they lived with parents or relatives (Appendix B). When asked what most of their grades have been at this college up to now, students responded in the following manner: 4%, "C, C- or lower;" 26%, "B-C+;" 28%, "B;" 26%, "A-B+;" and 16%, "A" (Appendix B).

Business was the major field of study chosen by the largest percentage of students with 25%, followed by education, with 22%, and health, with 14% of the students indicating a major in this area (Appendix B). Sixty-three percent of the students indicated that neither one of their parents graduated from college, while 14% indicated that both parents graduated

from college (Appendix B). More than half of the students expected to enroll for a more advanced degree (Appendix B). When asked about the number of hours per week spent on activities related to school work, classes, and studying, the following responses were noted: 4% of the students spent less than 20; 13%, 20 hours; 36%, 30 hours; 30%, 40; and 17%, about 50 hours a week (Appendix B). Forty-one percent of the students were not employed during the current school year, 17% worked 10 hours or less a week, 16% worked 15 hours, 17% worked 20 hours, and 9% of the students worked 30 hours or more a week (Appendix B). Eighteen percent of the students paid all or nearly all of their college expenses this year, while 59% paid none or very little (Appendix B). Ninety-six percent, or 507 students identified their race or ethnic background as white/caucasian, 2 students were black, 3 were hispanic, 11 were oriental, and 4 identified themselves as "other."

LIMITATIONS

1.) The study was limited to UW-La Crosse, and results may not reflect institutions of different demographic characteristics.

2.) Length of the instrument may have created a limitation by discouraging completion of the instrument, or by having only the most motivated students completing it. The instrument was eight pages in length, categorized into

seven sections, which included a total of 195 items, including 17 demographic information items.

3.) The study may have had a further limitation in that the percentage of transfer students may have interfered with student responses regarding experiences specific to the UW-La Crosse campus.

4.) The comparative data base used for statistical analysis of the second hypothesis was composite scores of 2,250 cases from six public comprehensive universities and colleges. These institutions used the Pace College Student Experiences questionnaire, first edition, on their campuses between 1979 and 1982. A few items appeared in the 1979 edition of the questionnaire, but not in the 1983 edition; therefore, comparisons could not be made with respect to these items. Excluded from comparison were the following:

1.) Activities related to science and technology.

2.) Reading and writing experiences.

3.) Environmental emphasis on the personal relevance and practical value of courses.

4.) Progress toward gaining information relevant to a career.

5.) Acquiring a familiarity with the use of computers.

6.) Becoming aware of the consequences of new scientific and technological applications.

CHAPTER IV

CONCLUSIONS, RECOMMENDATIONS, AND SUMMARY

This chapter consists of three sections: conclusions based on results of the Pace College Student Experiences questionnaire; recommendations for further research, recommendations for institutions; and a summary of the research project.

CONCLUSIONS

In Chapter One, six questions were posed regarding the quality of effort, or personal investment, UW-La Crosse students have made in the utilization of facilities, services, and opportunities at the institution. These questions are restated and answered below.

Question 1: How satisfied are the students with college in general?

It was determined that 77.3% of the students sampled were either satisfied or very satisfied with college. It was also found that there were no significant differences between UW-La Crosse freshmen, sophomores, juniors, seniors, graduates, and non-traditional students in levels of satisfaction.

Question 2: What is the extent and proficiency of the students' reading and writing skills?

The research indicated that more than 41% of the students read 5-10 textbooks or assigned books during the current school

year, while nearly 39% of the students read 10 or more. With respect to non-assigned books, almost 50% read fewer than 5 books, while nearly 22% of the students read 5-10 books during the current school year. It was found that underclassmen and juniors read significantly fewer non-assigned books than non-traditional and graduate students. Seniors reported participation in significantly more essay exams than underclassmen. Twenty-four percent of the seniors reported writing 10-20 essay exams in their courses, compared to 11% of the underclassmen; and 17% of the seniors wrote more than 20 essay exams, compared to 3% of the underclassmen. In general, 36% of the students wrote less than 5 essay exams, 32% wrote 5-10, and nearly 22% wrote more than 10. With regard to written reports, 46% of the students wrote fewer than 5, 26% wrote 5-10, and nearly 18% wrote more than 10 term papers or written reports during the current school year. Furthermore, the number of reports written by seniors and graduate students was significantly higher than underclassmen and juniors.

Question 3: How do the students rate physical characteristics of the UW-La Crosse college environment?

Responses indicated that UW-La Crosse students held similar attitudes with students at similar instutions regarding the college environment's emphasis on academic, esthetic, and analytical qualities, and the development of vocational competence. In contrast, UW-La Crosse students rated their relationships with fellow students, faculty, and

administrative personnel as significantly more positive than students from similar institutions. Among students at UW-La Crosse, the following differences were found:

1.) Underclassmen rated the environment significantly higher than upperclassmen, graduate, and traditional students with respect to the development of esthetic, expressive, and creative qualities.

2.) Upperclassmen and graduate students reported their relationships with faculty as significantly more positive than did freshmen, sophomores, and non-traditional students.

3.) Non-traditional students reported their relationships with other students, student groups, and activities as significantly less positive than did freshmen, sophomores, juniors, seniors, and graduate students.

Question 4: What are the students' estimates of gain or progress toward the achievement of objectives in their college education?

Students at UW-La Crosse reported significantly less progress with respect to the following areas:

1.) Developing an awareness of different philosophies, cultures, and ways of life.

2.) Understanding new scientific and technical advancements.

3.) Quantitative thinking, including the ability to understand probabilities and proportions.

Students at UW-La Crosse reported significantly more progress with respect to the following areas:

1.) Self-understanding, including abilities, interests, and personality.

2.) Understanding others, and the ability to get along with different kinds of people.

3.) The ability to function as a team member.

4.) Developing good health habits and physical fitness.

Among students at UW-La Crosse, significant differences were found to exist between the subgroups in three areas of development; vocational, academic, and personal and social.

Underclassmen indicated having made the least amount of progress toward the acquisition of skills and knowledge applicable to a specific job or type of work.

In general, upperclassmen, non-traditional, and graduate students reported more progress related to intellectual skills and general education than did underclassmen. Specific items included the following:

1.) Specialization for further education.

2.) The ability to think analytically and logically.

3.) Independent learning.

4.) Acquisition of broad knowledge.

5.) Acquisition of information relevant to a career.

6.) An appreciation of the arts.

7.) An appreciation of literature.

8.) Clear and effective writing skills.

9.) Acquisition of computer skills.

Non-traditional students indicated the least amount of progress toward goals related to personal and social development. This subgroup reported less than the other five subgroups toward the understanding of others, and in the ability to function as a team member.

Question 5: What differences exist between the six subgroups (freshmen, sophomores, juniors, seniors, graduates, and non-traditional students) in terms of variables assessed by the inventory?

Significant differences were found in four of the five sections of the questionnaire: 1.) college activities, 2.) reading and writing experiences, 3.) the college environment, and 4.) estimate of gains.

The research indicated that upperclassmen, non-traditional, and graduate students participated in higher levels of intellectual and academic activities than underclassmen. Upperclassmen and graduate students engaged in "higher intellectual levels" of conversation (Pace, 1984), and were more involved with activities related to the arts than underclassmen and non-traditional students. Underclassmen were more involved with activities related to campus housing, while upperclassmen were more involved with clubs, organizations, and the student union. Non-traditional and graduate students were significantly less involved with campus-related athletics and recreation than other students.

The research found that the extent of the reading and writing experiences of underclassmen was significantly less than upperclassmen, non-traditional, and graduate students.

With respect to the college environment, underclassmen and juniors rated the emphasis of esthetic, expressive, and creative qualities, as well as relationships with fellow students, more positively. Seniors and graduate students described their relationships with faculty members as more positive compared to the other groups.

With regard to the estimate of gains section, upperclassmen reported significantly more progress toward goals related to vocational and academic development, while underclassmen reported significant progress toward several objectives related to personal and social development.

No significant differences were found between the six subgroups and satisfaction with college.

Question 6: What differences exist between responses by students at UW-La Crosse and populations from similar colleges and universities?

Significant differences were found in four sections of the questionnaire: 1.) college activities, 2.) opinions about college, 3.) the college environment, and 4.) estimate of gains.

Students at UW-La Crosse were more involved in athletics and recreation, campus residence activities, and higher levels of conversation topics than students at similar institutions.

UW-La Crosse students reported a significantly higher level of satisfaction with college than students from similar institutions.

The responses of students at UW-La Crosse indicated more positive feelings toward their relationships with fellow students, faculty members, and administrative personnel compared to students at similar institutions.

Students at UW-La Crosse reported significantly less progress toward objectives related to developing a cultural awareness, understanding new scientific and technical developments, and quantitative thinking than students at similar institutions.

The research also showed that students at UW-La Crosse reported significantly more progress toward goals related to self-understanding, understanding others, the ability to function as a team member, and developing good health habits and physical fitness than students at similar institutions.

RECOMMENDATIONS

Two categories of recommendations are presented: 1.) recommendations for further research, and 2.) institutional recommendations which address the needs that were identified in Chapter Three.

Recommendations for Further Research

Perhaps the greatest potential value of the Pace College Student Experiences questionnaire is the self-study aspect, useful for accreditation purposes. Accreditation associations desire specific data about outcomes, as well as processes,

programs, resources, personnel, and finances. The College Student Experiences questionnaire provides data about how students utilize the resources available to them, and what they "get out" of these resources. The subject of college experiences is broad in scope, lending itself to several studies. The data necessary to complete the following 15 questions was collected as part of this research project; therefore, these recommendations could be fulfilled without requiring additional data collection.

1. It is recommended that the current study be geared toward institutional research for the purpose of self-study and accreditation review. Possible questions to consider include the following:

1.) What are the best predictors of student gain and satisfaction at our school?

2.) What are the differences between residents and commuters, transfer students and others, or freshmen and seniors?

3.) What are the differences between responses of male and female students?

4.) What are the differences between students in different major fields of study?

5.) What are the differences between full-time and part-time students?

6.) What connections are there between students' quality of effort, and their attainment of important educational objectives toward which their efforts were presumably directed?

7.) What are the differences between students who currently live in campus housing or near campus, and those who live farther away, or with parents?

8.) What are the differences between the number of hours per week students usually spend on activities related to their school work in terms of variables assessed by the inventory?

9.) Compare various quality of effort scales related to the use of non-academic facilities to the opportunity for students' interpersonal relations and self-understanding.

10.) Similarly, compare various quality of effort scales related to the use of academic facilities to the opportunity for students' intellectual and vocational development.

11.) Compare the grades of students to various aspects of the College Student Experiences questionnaire.

12.) What are the differences between responses of students whose parents graduated from college, and the responses of students whose parents did not graduate from college?

13.) What are the differences between students who expect to enroll for a more advanced degree and those who do not?

14.) What are the differences between students who are employed, compared to those who do not work while attending school?

15.) What are the differences between students who provide more than half, or nearly all of their college expenses with students who provide less than half, or very little of their own college expenses?

2. It is recommended that the Pace College Student Experiences questionnaire be used on more than one occasion to study change on the UW-La Crosse campus. When new programs have been introduced, the questionnaire is sensitive enough to reveal changes intended by the institution, an important element in good evaluation (Pace, 1984).

3.) It is desirable to compare the college experiences of minority or foreign students with "majority" students to assess what factors best predict their achievement with respect to educational objectives.

Recommendations for Institutions

Presented here are recommendations to enhance the college experience at UW-La Crosse.

1. It is recommended that results from this study, along with the unanalyzed data collected in this research, be used

as a campus-wide review for more effective recruitment and retention efforts. Based on more than three thousand cases, Pace (1984) concluded that in the prediction of college achievement, what counts most is what students do in college (quality of effort variables), not who they are (student characteristic variables), or where they are (college status and college environment variables).

2. It is recommended that this study and the unanalyzed data collected in this project be used to enhance the institution's objectives, and accreditation review. Quality of effort is a valuable concept: it has diagnostic and predictive uses in understanding student learning and development in the college environment (Pace, 1984).

3. Information gathered from this study may be used in the process of institutional self-examination and evaluation. It was shown that specific quality of effort scales have a clear relationship to specific gains. It is also documented that quality of effort in general has a clear relationship to all gains. The more students invest in the college experience, the more they will gain from it (Pace, 1984).

4. It appears desirable to share the results of this study with academic departments in an effort to encourage increased emphasis in the areas of academic, and intellectual development. The results of this study suggest that these aspects of students' experiences at UW-La Crosse need strengthening, especially in the areas of cultural and

scientific development. Academic faculty and staff need to become more aware of, and understand, student growth and development during college in order to offer the appropriate levels of challenge and support.

5. Perhaps the most important institutional recommendation that can be made is to share the findings of this study with administrative personnel and program coordinators in an effort to become more accountable for student personnel programs and services. The College Student Experiences questionnaire is a systematic, conceptually based, comprehensive inventory that describes how college students utilize the facilities and opportunities for learning and development that the university provides. Many of the activities included in the questionnaire reveal how students use facilities in which the institution spends a great deal of money. The latest financial reports indicate that in 1981-82, public comprehensive institutions spent $536,680,000.00 on student services, which accounted for 5.5% of their total expenditures (National Center for Education Statistics, 1984).

This study, and information collected in this research have relevance to the concerns of student personnel administrators because many of the activities involve personal and social development. By better understanding how students grow and develop during the college years, and identifying what aspects of the college experience encourage and facilitate growth and development, programs and services can be

implemented or modified to better meet the needs of students. Many researchers feel that needs assessment is a prerequisite to program planning for intentional student development. Data collected from this research can be shared with administrators to justify development or continued support of programs, to determine priorities for use of limited resources, and to increase the likelihood that the resources invested in programs will produce positive, and desired outcomes for students. Finally, it is recommended that needs assessment involve all individuals and groups associated with the institution, in an effort to help faculty, administrators, and staff learn more about their students and their environment.

Summary

This study investigated the quality of effort or personal investment UW-La Crosse students have made in the utilization of facilities, services, and opportunities at the institution. This study was designed to provide UW-La Crosse with significant data potentially useful in decisions to originate or modify programs and services. Research has demonstrated the importance of the college environment in portraying the institution's purpose, providing incentives for desired student behavior, and encouraging relationships among students that tend to actualize or achieve those purposes and incentives.

The intent of the research was to determine: 1.) student satisfaction with college in general, 2.) the extent and proficiency of students' reading and writing skills, 3.) students'

attitudes toward various characteristics of the UW-La Crosse college environment, 4.) students' estimates of progress toward the achievement of educational objectives, 5.) what differences exist between the six subgroups (freshmen, sophomores, juniors, seniors, graduates, and non-traditional students) in terms of variables assessed by the inventory, and 6.) what differences exist between responses of students at UW-La Crosse and similar institutions of higher education.

The questionnaire was distributed to a stratified random sample of 125 full-time UW-La Crosse students drawn from the following groups: freshmen, sophomores, juniors, seniors, graduates, and non-traditional students. One-way analyses of variance were used to identify significant differences between subgroups, and the Scheffe post hoc test was used to determine the location of significant differences between the subgroups. A t test was performed to analyze differences between responses of students at UW-La Crosse and populations from similar institutions.

The results indicated that upperclassmen, graduate, and non-traditional students participated in higher levels of academically-oriented activities, indicated more positive relationships with faculty members, and reported more progress toward academic and vocational goals than underclassmen. In contrast, underclassmen were more involved with activities related to personal and social development, indicated more positive relationships with fellow students, and reported more progress toward objectives related to personal and social growth.

Further analysis indicated that differences existed between the responses of students at UW-La Crosse and populations from similar institutions. With respect to self-estimates of gain, students at UW-La Crosse reported less progress in the areas of cultural awareness, scientific and technical developments, and the ability to think quantitatively. In contrast, students at UW-La Crosse engaged in higher levels of topics of conversation, were more involved with campus housing experiences, and athletics and recreation. A significantly higher level of satisfaction with college was found among UW-La Crosse students, as well as more positive relationships with fellow students, faculty members, and administrative personnel. The results also indicated that students at UW-La Crosse reported significantly more progress toward goals related to understanding themselves and others, functioning as a team member, and developing good health habits and physical fitness.

Recommendations were made for further study, many of which could utilize data collected as part of this research. The research encouraged inclusion of these data in campus-wide and departmental review of programs and services to enhance the achievement of the goals of the institution.

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APPENDIX A

MATERIALS SENT TO RESEARCH SAMPLE

A1: Pace College Student Experiences Questionnaire

A2: Cover Letter

A3: Postcard Follow-up

A4: Second Request Cover Letter

COLLEGE STUDENT EXPERIENCES

The main purpose of this inquiry is to learn more about how students spend their time—in course work, in the library, in contacts with faculty, in extracurricular activities, in various social and cultural activities, and in using other facilities and opportunities that exist in the college setting.

The information obtained from you and from other students at many different colleges and universities will provide new insight to administrators, faculty members, and others who provide the resources and shape the programs that are meant to be of benefit for student learning and development within the college experience.

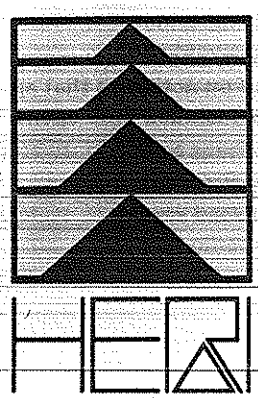
At first glance you may think it will take a long time to fill out this questionnaire, but you will find that it can be answered quite easily, that you can do it in less than an hour and perhaps only 30 to 45 minutes. You will find, too, when you have finished it, that your answers provide a kind of self-portrait of what you have been giving and getting in your college experience.

The ultimate benefits in this or any other survey depend on the thoughtful responses and willing participation from those who are asked to help. Your willingness to participate is important and very much appreciated.

We do not ask you to write your name anywhere in this questionnaire; but we do need to know where the reports come from, and that is why each questionnaire has a number on the back page—certain blocks of numbers tell us that those questionnaires have come from your college.

And, as you will see on the next page, we need to know a few things about you and where you come from, so that we can learn how activities might be related to age, sex, year in college, major field, whether one lives on the campus, whether one has a job, etc.

The questionnaire responses will be read by an electronic scanning device. The machine can only read messages given to it with a soft, **black lead pencil**. Please be careful in marking your responses. Erase cleanly any response you wish to change.



This questionnaire is distributed by the Higher Education Research Institute at UCLA, 405 Hilgard Avenue, Los Angeles, CA 90024. It is intended for use by any college or university that wishes to have an inventory of the campus experiences of its students.

Second Edition

BACKGROUND INFORMATION

DIRECTIONS: Indicate your response by filling in the appropriate space under each question.

1 **Age**

- ◯ 22 or younger
- ◯ 23–27
- ◯ 28 or older

2 **Sex**

- ◯ male
- ◯ female

Are you single or married?

- ◯ single
- ◯ married

What is your classification in college?

- ◯ freshman
- ◯ sophomore
- ◯ junior
- ◯ senior
- ◯ graduate student

Did you enter college here or did you transfer here from another college?

- ◯ entered here
- ◯ transferred from another college

Have you at any time while attending this college lived in a college dormitory, fraternity or sorority house, or other college housing?

- ◯ yes
- ◯ no

3 **Where do you now live during the school year?**

- ◯ dormitory or other college housing
- ◯ fraternity or sorority house
- ◯ private apartment or room within walking distance of the college
- ◯ house, apartment, etc. away from the campus
- ◯ with my parents or relatives

5 **At this college, up to now, what have most of your grades been?**

- ◯ A
- ◯ A-, B+
- ◯ B
- ◯ B-, C+

Which of the following comes closest to describing your major field of study (or your expected major)?

- ◯ Agriculture
- ◯ Arts (art, music, theater, etc.)
- ◯ Biological Sciences (biology, biochemistry, botany, zoology, etc.)
- ◯ Business
- ◯ Computer Science
- ◯ Education (including physical education and recreation)
- ◯ Engineering
- ◯ Health related fields (nursing, physical therapy, health technology, etc.)
- ◯ Humanities (literature, languages, history, philosophy, religion, etc.)
- ◯ Physical Sciences (physics, chemistry, mathematics, astronomy, earth science, etc.)
- ◯ Social Sciences (economics, political science, psychology, sociology, etc.)
- ◯ Other: What?

  [ ]

- ◯ Undecided

Did either of your parents graduate from college?

- ◯ no
- ◯ yes, both parents
- ◯ yes, father only
- ◯ yes, mother only

When, or if, you graduate from college, do you expect to enroll for a more advanced degree?

- ◯ yes
- ◯ no

Are you going to school full-time or part-time?

- ◯ full-time
- ◯ part-time

4 **During the time school is in session, about how many hours a week do you usually spend on activities that are related to your school work? This includes time spent in class and time spent studying.**

- ◯ about 50 hours a week or more
- ◯ about 40 hours a week
- ◯ about 30 hours a week
- ◯ about 20 hours a week
- ◯ less than 20 hours a week

6

During the time school is in session, about how many hours a week do you usually spend working on a job?

- ◯ none. I am not employed during the school year.
- ◯ about 10 hours or less
- ◯ about 15 hours
- ◯ about 20 hours
- ◯ about 30 hours
- ◯ more than 30 hours

About how much of your college expenses this year are provided by your parents or family?

- ◯ all or nearly all
- ◯ more than half
- ◯ less than half
- ◯ none or very little

What is your racial or ethnic identification?

- ◯ White, Caucasian
- ◯ Black
- ◯ Hispanic, Mexican-American, Puerto Rican
- ◯ Oriental or Asian
- ◯ Other: What? →

How are you classified in the United States?

- ◯ Citizen of the United States
- ◯ Immigrant (permanent resident)
- ◯ Non-immigrant

If you are not a citizen of the United States, in what country are you a citizen? →

COLLEGE ACTIVITIES

DIRECTIONS: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very often	Often	Occasionally	Never	Library Experiences
◯	◯	◯	◯	Used the library as a quiet place to read or study materials you brought with you.
◯	◯	◯	◯	Used the card catalogue to find what materials there were on some topic.
◯	◯	◯	◯	Asked the librarian for help in finding material on some topic.
◯	◯	◯	◯	Read something in the reserve book room or reference section.
◯	◯	◯	◯	Used indexes (such as the Reader's Guide to Periodical Literature) to journal articles.
◯	◯	◯	◯	Developed a bibliography or set of references for use in a term paper or other report.
◯	◯	◯	◯	Found some interesting material to read just by browsing in the stacks.
◯	◯	◯	◯	Ran down leads, looked for further references that were cited in things you read.
◯	◯	◯	◯	Used specialized bibliographies (such as Chemical Abstracts, Psychological Abstracts, etc.).
◯	◯	◯	◯	Gone back to read a basic reference or document that other authors had often referred to.

7

Very often	Often	Occasionally	Never	Experiences with Faculty
◯	◯	◯	◯	Talked with a faculty member.
◯	◯	◯	◯	Asked your instructor for information related to a course you were taking (grades, make-up work, assignments, etc.).
◯	◯	◯	◯	Visited informally and briefly with an instructor after class.
◯	◯	◯	◯	Made an appointment to meet with a faculty member in his/her office.
◯	◯	◯	◯	Discussed ideas for a term paper or other class project with a faculty member.
◯	◯	◯	◯	Discussed your career plans and ambitions with a faculty member.
◯	◯	◯	◯	Asked your instructor for comments and criticisms about your work.
◯	◯	◯	◯	Had coffee, cokes, or snacks with a faculty member.
◯	◯	◯	◯	Worked with a faculty member on a research project.
◯	◯	◯	◯	Discussed personal problems or concerns with a faculty member.

DIRECTIONS: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Course Learning

Very often	Often	Occasionally	Never	
○	○	○	○	Took detailed notes in class.
○	○	○	○	Listened attentively in class meetings.
○	○	○	○	Underlined major points in the readings.
○	○	○	○	Tried to see how different facts and ideas fit together.
○	○	○	○	Thought about practical applications of the material.
○	○	○	○	Worked on a paper or project where you had to integrate ideas from various sources.
○	○	○	○	Summarized major points and information in your readings or notes.
○	○	○	○	Tried to explain the material to another student or friend.
○	○	○	○	Made outlines from class notes or readings.
○	○	○	○	Did additional readings on topics that were introduced and discussed in class.

8

Student Union

Very often	Often	Occasionally	Never	
○	○	○	○	Had meals, snacks, etc. at the student union or student center.
○	○	○	○	Looked at the bulletin board for notices about campus events.
○	○	○	○	Met your friends at the student union or student center.
○	○	○	○	Sat around in the union or center talking with other students about your classes and other college activities.
○	○	○	○	Used the lounge(s) to relax or study by yourself.
○	○	○	○	Seen a film or other event at the student union or center.
○	○	○	○	Attended a social event in the student union or center.
○	○	○	○	Heard a speaker at the student union or center.
○	○	○	○	Played games that were available in the student union or center (ping-pong, cards, pool, pinball, etc.).
○	○	○	○	Used the lounge(s) or meeting rooms to meet with a group of students for a discussion.

9

Art, Music, Theater

Very often	Often	Occasionally	Never	
○	○	○	○	Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the college.
○	○	○	○	Gone to an art gallery or art exhibit on the campus.
○	○	○	○	Read or discussed the opinions of art critics.
○	○	○	○	Participated in some art activity (painting, pottery, weaving, drawing, etc.).
○	○	○	○	Talked about music (classical, popular, musicians, etc.) with other students at the college.
○	○	○	○	Attended a concert or other music event at the college.
○	○	○	○	Read or discussed the opinions of music critics.
○	○	○	○	Participated in some music activity (orchestra, chorus, etc.).
○	○	○	○	Talked about the theater (plays, musicals, dance, etc.) with other students at the college.
○	○	○	○	Seen a play, ballet, or other theater performance at the college.
○	○	○	○	Read or discussed the opinions of drama critics.
○	○	○	○	Participated in or worked on some theatrical production (acted, danced, worked on scenery, etc.).

10

Athletic and Recreation Facilities

Very often	Often	Occasionally	Never	
○	○	○	○	Set goals for your performance in some skill.
○	○	○	○	Followed a regular schedule of exercise, or practice in some sport, on campus.
○	○	○	○	Used outdoor recreational spaces for casual and informal individual athletic activities.
○	○	○	○	Used outdoor recreational spaces for casual and informal group sports.
○	○	○	○	Used facilities in the gym for individual activities (exercise, swimming, etc.).
○	○	○	○	Used facilities in the gym for playing sports that require more than one person.
○	○	○	○	Sought instruction to improve your performance in some athletic activity.
○	○	○	○	Played on an intramural team.
○	○	○	○	Kept a chart or record of your progress in some skill or athletic activity.
○	○	○	○	Played in any varsity sport or athletic event.

DIRECTIONS: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Clubs and Organizations

Very often | Often | Occasionally | Never

- ○ ○ ○ ○ Looked in the student newspaper for notices about campus events and student organizations.
- ○ ○ ○ ○ Attended a program or event put on by a student group.
- ○ ○ ○ ○ Read or asked about a club, organization, or student government activity.
- ○ ○ ○ ○ Attended a meeting of a club, organization, or student government group.
- ○ ○ ○ ○ Voted in a student election.
- ○ ○ ○ ○ Discussed policies and issues related to campus activities and student government.
- ○ ○ ○ ○ Worked in some student organization or special project (publications, student government, social event, etc.).
- ○ ○ ○ ○ Discussed reasons for the success or lack of success of student club meetings, activities, or events.
- ○ ○ ○ ○ Worked on a committee.
- ○ ○ ○ ○ Met with a faculty adviser or administrator to discuss the activities of a student organization.

Personal Experiences

Very often | Often | Occasionally | Never

- ○ ○ ○ ○ Told a friend why you reacted to another person the way you did.
- ○ ○ ○ ○ Discussed with other students why some groups get along smoothly, and other groups don't.
- ○ ○ ○ ○ Sought out a friend to help you with a personal problem.
- ○ ○ ○ ○ Elected a course that dealt with understanding personal and social behavior.
- ○ ○ ○ ○ Identified with a character in a book or movie and wondered what you might have done under similar circumstances.
- ○ ○ ○ ○ Read articles or books about personal adjustment and personality development.
- ○ ○ ○ ○ Taken a test to measure your abilities, interests, or attitudes.
- ○ ○ ○ ○ Asked a friend to tell you what he/she really thought about you.
- ○ ○ ○ ○ Been in a group where each person, including yourself, talked about his/her personal problems.
- ○ ○ ○ ○ Talked with a counselor or other specialist about problems of a personal nature.

Experience in Writing

Very often | Often | Occasionally | Never

- ○ ○ ○ ○ Used a dictionary or thesaurus to look up the proper meaning of words.
- ○ ○ ○ ○ Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice, and sequence of ideas or points as you were writing.
- ○ ○ ○ ○ Wrote a rough draft of a paper or essay and then revised it yourself before handing it in.
- ○ ○ ○ ○ Spent at least five hours or more writing a paper (not counting time spent in reading or at the library).
- ○ ○ ○ ○ Asked other people to read something you wrote to see if it was clear to them.
- ○ ○ ○ ○ Referred to a book or manual about style of writing, grammar, etc.
- ○ ○ ○ ○ Revised a paper or composition two or more times before you were satisfied with it.
- ○ ○ ○ ○ Asked an instructor for advice and help to improve your writing.
- ○ ○ ○ ○ Made an appointment to talk with an instructor who had criticized a paper you had written.
- ○ ○ ○ ○ Submitted for publication an article, story, or other composition you had written.

Student Acquaintances

Very often | Often | Occasionally | Never

- ○ ○ ○ ○ Made friends with students whose academic major field was very different from yours.
- ○ ○ ○ ○ Made friends with students whose interests were very different from yours.
- ○ ○ ○ ○ Made friends with students whose family background (economic and social) was very different from yours.
- ○ ○ ○ ○ Made friends with students whose age was very different from yours.
- ○ ○ ○ ○ Made friends with students whose race was different from yours.
- ○ ○ ○ ○ Made friends with students from another country.
- ○ ○ ○ ○ Had serious discussions with students whose philosophy of life or personal values were very different from yours.
- ○ ○ ○ ○ Had serious discussions with students whose religious beliefs were very different from yours.
- ○ ○ ○ ○ Had serious discussions with students whose political opinions were very different from yours.
- ○ ○ ○ ○ Had serious discussions with students from a country different from yours.

DIRECTIONS: In your experience at this college during the current school year, about how often have you done each of the following?

Very often	Often	Occasionally	Never	Science/Technology
○	○	○	○	Memorized formulas, definitions, technical terms.
○	○	○	○	Tried to express a set of relationships in mathematical terms.
○	○	○	○	Tested your understanding of some scientific principle by seeing if you could explain it to another student.
○	○	○	○	Read articles (not assigned) about scientific theories or concepts.
○	○	○	○	Practiced to improve your skill in using some laboratory equipment.
○	○	○	○	Showed a classmate how to use a piece of scientific equipment.
○	○	○	○	Attempted to explain an experimental procedure to a classmate.
○	○	○	○	Went to an exhibit or demonstration of some new scientific device.
○	○	○	○	Worked on a paper or project where you used a computer.
○	○	○	○	Used a computer to assist in course learning (language skills, math skills, etc.).
○	○	○	○	Wrote a program to analyze data on a computer.
○	○	○	○	Sought out-of-class instruction in ways to use computers.

DIRECTIONS: If you are now living in a dormitory or fraternity/sorority, about how often have you done each of the following in that residence unit during the current school year? Indicate your response by filling in one of the spaces to the left of each statement. If you do not live in a campus residence, omit these items.

Very often	Often	Occasionally	Never	Dormitory or Fraternity/Sorority
○	○	○	○	Had lively conversations about various topics during dinner in the dining room or cafeteria.
○	○	○	○	Gone out with other students for late night snacks.
○	○	○	○	Offered to help another student (with course work, errands, favors, advice, etc.) who needed some assistance.
○	○	○	○	Participated in bull sessions that lasted late into the night.
○	○	○	○	Asked others for assistance in something you were doing.
○	○	○	○	Borrowed things (clothes, records, posters, books, etc.) from others in the residence unit.
○	○	○	○	Attended social events put on by the residence unit.
○	○	○	○	Studied with other students in the residence unit.
○	○	○	○	Helped plan or organize an event in the residence unit.
○	○	○	○	Worked on some community service or fund raising project with other students in the residence unit.

CONVERSATIONS

DIRECTIONS: In conversations with other students at this college during the current school year, about how often have you talked about each of the following?

Very often	Often	Occasionally	Never	Topics of Conversation
○	○	○	○	Job prospects, money, careers.
○	○	○	○	Movies and popular music.
○	○	○	○	Social events, parties.
○	○	○	○	Boyfriends, girlfriends.
○	○	○	○	Current events in the news.
○	○	○	○	Major social problems such as peace, human rights, equality, justice.
○	○	○	○	Different life styles and customs.
○	○	○	○	The ideas and views of other people such as writers, philosophers, historians.
○	○	○	○	Fine arts — painting, theatrical productions, ballet, symphony, etc.
○	○	○	○	Science — theories, experiments, methods.
○	○	○	○	Computers and other technologies.
○	○	○	○	Social and ethical issues related to science and technology such as energy, pollution, chemicals, genetics, military use.

In these conversations with other students, about how often have you done each of the following?

Very often	Often	Occasionally	Never	Information in Conversations
○	○	○	○	Referred to knowledge you had acquired in your reading.
○	○	○	○	Explored different ways of thinking about the topic.
○	○	○	○	Referred to something a professor said about the topic.
○	○	○	○	Subsequently read something that was related to the topic.
○	○	○	○	Changed your opinion as a result of the knowledge or arguments presented by others.
○	○	○	○	Persuaded others to change their minds as a result of the knowledge or arguments you cited.

READING/WRITING

During the current school year, about how many books have you read? Fill in one space in each column.

Textbooks or assigned books | Non-assigned books

- ◯ ◯ none
- ◯ ◯ fewer than 5
- ◯ ◯ between 5 and 10
- ◯ ◯ between 10 and 20
- ◯ ◯ more than 20

During the current school year, about how many written reports have you made? Fill in one space in each column.

Essay exams in your courses | Term papers or other written reports

- ◯ ◯ none
- ◯ ◯ fewer than 5
- ◯ ◯ between 5 and 10
- ◯ ◯ between 10 and 20
- ◯ ◯ more than 20

OPINIONS ABOUT COLLEGE

How well do you like college?

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- ◯ I am enthusiastic about it.
- ◯ I like it.
- ◯ I am more or less neutral about it.
- ◯ I don't like it.

If you could start over again, would you go to the same college you are now attending?

- ◯ Yes, definitely
- ◯ Probably yes
- ◯ Probably no
- ◯ No, definitely

What is your opinion about the following statement: "If students expect to benefit from what this college or university has to offer, they have to take the initiative."

- ◯ Strongly agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly disagree

THE COLLEGE ENVIRONMENT

Colleges differ from one another in the extent to which they emphasize or stress various aspects of students' development. Thinking of your own experience at this college, to what extent do you feel that each of the following is emphasized? The responses are numbered from 7 to 1, with the highest and lowest points described. Fill in the space of whichever number best indicates your impression on this seven-point rating scale.

Emphasis on the development of academic, scholarly, and intellectual qualities

Strong emphasis ⑦ ⑥ ⑤ ④ ③ ② ① **Weak emphasis**

Emphasis on the development of esthetic, expressive, and creative qualities

Strong emphasis ⑦ ⑥ ⑤ ④ ③ ② ① **Weak emphasis**

Emphasis on being critical, evaluative, and analytical

Strong emphasis ⑦ ⑥ ⑤ ④ ③ ② ① **Weak emphasis**

Emphasis on the development of vocational and occupational competence

Strong emphasis ⑦ ⑥ ⑤ ④ ③ ② ① **Weak emphasis**

Emphasis on the personal relevance and practical values of your courses

Strong emphasis ⑦ ⑥ ⑤ ④ ③ ② ① **Weak emphasis**

The next three ratings refer to relationships among people at the college. Again, thinking of your own experience, how would you rate these relationships on the seven-point scales?

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Relationship with other students, student groups, and activities

Friendly, Supportive, Sense of belonging	(7)	(6)	(5)	(4)	(3)	(2)	(1) Competitive, Uninvolved, Sense of alienation

Relationships with faculty members

Approachable, Helpful, Understanding, Encouraging	(7)	(6)	(5)	(4)	(3)	(2)	(1) Remote, Discouraging, Unsympathetic

Relationships with administrative personnel and offices

Helpful, Considerate, Flexible	(7)	(6)	(5)	(4)	(3)	(2)	(1) Rigid, Impersonal, Bound by regulations

ESTIMATE OF GAINS

DIRECTIONS: In thinking over your experiences in college up to now, to what extent do you feel you have gained or made progress in each of the following respects? Indicate your response by filling in one of the spaces to the left of each statement.

Very much	Quite a bit	Some	Very little	
○	○	○	○	Vocational training — acquiring knowledge and skills applicable to a specific job or type of work.
○	○	○	○	Acquiring background and specialization for further education in some professional, scientific, or scholarly field.
○	○	○	○	Gaining a broad general education about different fields of knowledge.
○	○	○	○	Gaining a range of information that may be relevant to a career.
○	○	○	○	Developing an understanding and enjoyment of art, music, and drama.
○	○	○	○	Broadening your acquaintance and enjoyment of literature.
○	○	○	○	Writing clearly and effectively.
○	○	○	○	Acquiring familiarity with the use of computers.
○	○	○	○	Becoming aware of different philosophies, cultures, and ways of life.
○	○	○	○	Developing your own values and ethical standards.
○	○	○	○	Understanding yourself — your abilities, interests, and personality.

Very much	Quite a bit	Some	Very little	
○	○	○	○	Understanding other people and the ability to get along with different kinds of people.
○	○	○	○	Ability to function as a team member.
○	○	○	○	Developing good health habits and physical fitness.
○	○	○	○	Understanding the nature of science and experimentation.
○	○	○	○	Understanding new scientific and technical developments.
○	○	○	○	Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology.
○	○	○	○	Ability to think analytically and logically.
○	○	○	○	Quantitative thinking — understanding probabilities, proportions, etc.
○	○	○	○	Ability to put ideas together, to see relationships, similarities, and differences between ideas.
○	○	○	○	Ability to learn on your own, pursue ideas, and find information you need.

Since the electronic scanning device can only read pencil marks, please fill in the grid corresponding to the number printed above it. This number tells us the name of your college and that you are one of the students from that college.

No. 30358

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

Thank you for your participation in this survey.

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University of Wisconsin - La Crosse

La Crosse, Wisconsin 54601 (608) 785-8000

February 6, 1984

Dear student,

AS A UW-LA CROSSE STUDENT YOU ARE IN AN IDEAL POSITION TO OFFER US INFORMATION THAT MAY BE USEFUL IN DECISIONS TO IMPLEMENT OR MODIFY PROGRAMS AND SERVICES ON THIS CAMPUS THAT ARE IMPORTANT TO YOU!

Completion of this questionnaire will provide critical information which describes campus life. Such information allows administrators, faculty, and staff to better understand students' education and development during their college years. Possible uses of this information may include more effective programs, facilities, and services designed for your learning and development while attending UW-La Crosse.

This questionnaire was developed in 1983 by C. Robert Pace of the Higher Education Research Institute at UCLA. It has been used by nearly 100 colleges and universities in an effort to assess and better understand the college experiences of its students.

The instrument is somewhat lengthy; however, this is an important study, and several aspects of college experiences have been included. I hope you believe that the importance of the responses justifies the length of the questionnaire.

While the surveys have been coded to enable a follow-up to non-respondents, your responses will be kept completely confidential. Please return the completed survey in the enclosed self-addressed envelope by Friday, February 17, 1984.

You are one of a small number of carefully selected individuals who have been asked to participate in this study, therefore, your cooperation is critical to this project. Results of the study will be available to you upon request. If interested, contact me at the Counseling & Testing Center (785-8073) after April 1, 1984.

Thank you very much for your help!

Sincerely,

Kip Zirkel, Ph.D.
Project Advisor

Christine E. Phelps, graduate assistant
College Experiences Study

Enclosures: 2

February 17, 1984

Dear student:

Approximately one week ago you were mailed a questionnaire which assesses college experiences.

We carefully selected a small number of individuals to participate, and your participation is critical. You are in the best position to offer us firsthand information about your college experiences, which may influence the future direction of programs and services at UW-La Crosse.

Would you please return the questionnaire by Friday, February 24, 1984?

Thank you.

Christine E. Phelps
Graduate Assistant
College Experiences Study

Please disregard notice if already returned.

University of Wisconsin - La Crosse

La Crosse, Wisconsin 54601 (608) 785-8000

February 27, 1984

Dear student,

About three weeks ago I sent you a questionnaire regarding college experiences. Once again I am asking for your cooperation in the completion of this questionnaire.

As a UW-La Crosse student you are in an ideal position to offer us critical information which describes campus life. Such information allows administrators, faculty and staff to better understand students' education and development during their college years. Possible uses of this information may include more effective programs, facilities, and services designed for your learning and development while attending UW-La Crosse.

You are one of a small number of carefully selected individuals who have been asked to participate in this study, therefore, your cooperation is critical. Please take some time to complete the enclosed questionnaire, and return it by Wednesday, March 7, 1984. Thank you for your help!

Results of the study will be available to you upon request. If interested, contact me at the Counseling & Testing Center (785-8073) after April 1, 1984.

Sincerely,

Christine E Phelps

Christine E. Phelps, graduate assistant
College Experiences Study

P.S. You may have completed the original questionnaire and I have not received it yet. If so, please disregard the follow-up, and thank you for your cooperation.

Enclosures: 2

APPENDIX B

RESPONDENTS' BACKGROUND INFORMATION

AGE OF RESPONDENTS

Subgroup	22 or younger		23-27		28 or older		Total
	n	%n	n	%n	n	%n	n
Freshmen	99	100.0	-	-	-	-	99
Sophomores	86	97.7	1	1.1	1	1.1	88
Juniors	82	93.2	6	6.8	0	-	88
Seniors	61	71.8	21	24.7	3	3.5	85
Graduates	2	2.4	47	57.3	33	40.2	82
Non-Traditionals	7	8.0	52	59.1	29	33.0	88
Total Sample	337	63.6	127	24.0	66	12.5	530

SEX OF RESPONDENTS

Subgroup	Male		Female		Total
	n	%n	n	%n	n
Freshmen	39	40.0	59	60.2	98
Sophomores	29	33.3	58	66.7	87
Juniors	33	37.5	55	62.5	88
Seniors	41	48.2	44	51.8	85
Graduate	39	47.6	43	52.4	82
Non-Traditionals	51	60.0	34	40.0	85
Total Sample	232	44.2	293	55.8	525

MARTIAL STATUS OF RESPONDENTS

Subgroup	Single n	Single %n	Married n	Married %n	Total n
Freshmen	99	100.0	-	-	99
Sophomores	87	98.9	1	1.1	88
Juniors	86	97.7	2	2.3	88
Seniors	83	97.6	2	2.4	85
Graduates	57	69.6	25	30.5	82
Non-Traditionals	62	70.5	26	29.5	88
Total Sample	474	89.4	56	10.6	530

NATIVE OR TRANSFER STUDENT

Subgroup	Enter here n	Enter here %n	Transfer n	Transfer %n	Total n
Freshmen	99	100.0	-	-	99
Sophomores	70	79.5	18	20.5	88
Juniors	63	71.6	25	28.4	88
Seniors	59	69.4	26	30.6	85
Graduates	62	75.6	20	24.4	82
Non-Traditionals	55	63.2	32	36.8	87
Total Sample	408	77.1	121	22.9	529

EVER LIVED IN COLLEGE HOUSING

Subgroup	Yes		No		Total
	n	%n	n	%n	n
Freshmen	82	82.8	17	17.2	99
Sophomores	67	76.1	21	23.9	88
Juniors	63	71.6	25	28.4	88
Seniors	55	64.7	30	35.3	85
Graduates	24	29.3	58	70.7	82
Non-Traditionals	27	30.7	61	69.3	88
Total Sample	318	60.0	212	40.0	530

CURRENT RESIDENCE OF RESPONDENTS

Subgroup	Dorm		F/S		Apt-Near		House-Away		Parents		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	82	83.7	-	-	1	1.0	4	4.1	11	11.2	98
Sophomores	41	46.6	2	2.3	23	26.1	12	13.6	10	11.4	88
Juniors	22	25.0	-	-	31	35.2	24	27.3	11	12.5	88
Seniors	9	10.7	1	1.2	44	52.4	18	21.4	12	14.3	84
Graduates	3	3.7	-	-	23	28.0	51	62.2	5	6.1	82
Non-Traditionals	7	8.0	-	-	26	30.0	45	51.1	10	11.4	88
Total Sample	164	31.1	3	0.6	148	28.0	154	29.2	59	11.2	528

GRADES OF RESPONDENTS

Subgroup	C or lower		B-C+		B		A-B+		A		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	8	8.1	40	40.4	30	30.3	14	14.1	7	7.1	99
Sophomores	7	8.0	33	37.9	26	29.9	15	17.2	6	6.9	87
Juniors	4	4.6	28	32.2	21	24.1	17	19.5	17	19.5	87
Seniors	-	-	19	22.6	35	41.7	22	26.2	8	9.5	84
Graduates	-	-	1	1.2	8	9.9	40	49.4	32	39.5	81
Non-Traditionals	3	3.4	15	17.0	26	29.5	28	31.8	16	18.2	88
Total Sample	22	4.2	136	25.9	146	27.8	136	25.9	86	16.3	526

COLLEGE DEGREE OF RESPONDENTS' PARENTS

Subgroup	No		Both		Father		Mother		Total
	n	%n	n	%n	n	%n	n	%n	n
Freshmen	64	64.6	15	15.2	16	16.2	4	4.0	99
Sophomores	56	63.6	11	12.5	15	17.0	6	6.8	88
Juniors	50	56.8	18	20.5	10	11.4	10	11.4	88
Seniors	58	68.2	9	10.6	12	14.1	6	7.1	85
Graduates	51	63.0	10	12.3	15	18.5	5	6.2	81
Non-Traditionals	56	63.6	13	14.8	15	17.0	4	4.5	88
Total Sample	335	63.3	76	14.4	83	15.7	35	6.6	529

MAJOR FIELD OF STUDY OF RESPONDENTS

Subgroup	Arts		Bio		Bus		Comp		Educ		Eng		Health		Human		Phys		Soc		Other		Und		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	1	1.1	4	4.2	33	34.7	4	4.2	14	14.7	-	-	17	17.9	1	1.1	1	1.1	5	5.3	7	7.4	8	8.4	95
Sophomores	2	2.4	4	4.8	28	33.7	4	4.8	14	16.9	-	-	10	12.0	1	1.2	-	-	6	7.2	8	9.6	6	7.2	83
Juniors	1	1.2	4	4.7	28	32.9	9	10.6	15	17.6	-	-	14	16.5	2	2.4	1	1.2	5	5.9	6	7.1	-	-	85
Seniors	1	1.3	5	6.4	13	16.7	7	9.0	17	21.8	-	-	10	12.8	-	-	2	2.6	13	16.7	10	12.8	-	-	78
Graduates	-	-	7	9.1	8	10.4	-	-	38	49.4	-	-	9	11.7	1	1.3	-	-	5	6.5	9	11.7	-	-	77
Non-Traditionals	3	3.4	2	2.3	18	20.7	11	12.6	12	13.8	1	1.1	12	13.8	7	8.0	-	-	14	16.1	3	3.4	4	4.6	87
Total Sample	8	1.6	26	5.1	128	25.3	35	6.9	110	21.8	1	0.2	72	14.3	12	2.4	4	0.8	48	9.5	43	8.5	18	3.6	506

RESPONDENTS PLANNING TO ENROLL FOR AN ADVANCED DEGREE

Subgroup	Yes n	Yes %n	No n	No %n	Total n
Freshmen	44	44.9	54	55.1	98
Sophomores	39	45.3	47	54.7	86
Juniors	42	48.3	45	51.7	87
Seniors	51	60.0	34	40.0	85
Graduates	48	59.3	33	40.7	81
Non-Traditionals	46	54.1	39	45.9	85
Total Sample	270	51.7	252	48.3	522

RESPONDENTS ATTENDING FULL-TIME OR PART-TIME

Subgroup	Full-time n	Full-time %n	Part-time n	Part-time %n	Total n
Freshmen	97	99.0	1	1.0	98
Sophomores	87	98.9	1	1.1	88
Juniors	87	100.0	-	-	87
Seniors	82	96.5	3	3.5	85
Graduates	81	98.8	1	1.2	82
Non-Traditionals	84	95.5	4	4.5	88
Total Sample	518	98.1	10	1.9	528

HOURS PER WEEK SPENT ON COURSEWORK

Subgroup	Less Than 20		20		30		40		About 50		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	4	4.1	15	15.3	47	48.0	19	19.4	13	13.3	98
Sophomores	2	2.3	13	14.8	27	30.7	34	38.6	12	13.6	88
Juniors	1	1.1	9	10.2	31	35.2	34	38.6	13	14.8	88
Seniors	3	3.5	13	15.3	35	41.2	26	30.6	8	9.4	85
Graduates	4	4.9	11	13.4	24	29.3	23	28.0	20	24.4	82
Non-Traditionals	6	6.8	9	10.2	26	29.5	23	26.1	24	27.3	88
Total Sample	20	3.8	70	13.2	190	35.9	159	30.1	90	17.0	529

HOURS PER WEEK EMPLOYED

Subgroup	0		10 or less		15		20		30		more than 30		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	66	66.7	17	17.2	6	6.1	7	7.1	3	3.1	-	-	99
Sophomores	45	51.1	20	22.7	11	12.5	8	9.1	1	1.1	3	3.4	88
Juniors	36	41.0	20	22.7	9	10.2	19	21.6	4	4.5	-	-	88
Seniors	22	25.9	9	10.6	16	18.8	24	28.2	9	10.6	5	5.9	85
Graduates	16	19.5	12	14.6	26	31.7	20	24.4	4	4.9	4	4.9	82
Non-Traditionals	31	35.6	13	14.9	16	18.4	11	12.6	10	11.5	6	6.9	87
Total Sample	216	40.8	91	17.2	84	15.9	89	16.8	31	5.9	18	3.4	529

COLLEGE EXPENSES PROVIDED BY PARENTS OR FAMILY

Subgroup	All n	All %n	More than half n	More than half %n	Less than half n	Less than half %n	None n	None %n	Total n
Freshmen	32	32.3	17	17.2	12	12.1	38	38.4	99
Sophomores	17	19.3	17	19.3	14	15.9	40	45.5	88
Juniors	13	14.8	12	13.6	10	11.4	53	60.2	88
Seniors	16	18.8	9	10.6	13	15.3	47	55.3	85
Graduates	8	9.9	2	2.5	10	12.3	61	75.3	81
Non-Traditionals	8	9.1	5	5.7	4	4.5	71	80.7	88
Total Sample	94	17.8	62	11.7	63	11.9	310	58.6	529

RACIAL OR ETHNIC IDENTIFICATION

Subgroup	Caucasian n	Caucasian %n	Black n	Black %n	Hispanic n	Hispanic %n	Oriental n	Oriental %n	Other n	Other %n	Total n
Freshmen	98	99.0	-	-	1	1.0	-	-	-	-	99
Sophomores	87	99.0	-	-	1	1.0	-	-	-	-	88
Juniors	87	99.0	-	-	-	-	1	1.0	-	-	88
Seniors	83	99.0	-	-	-	-	1	1.0	-	-	84
Graduates	75	91.5	2	2.4	-	-	4	4.9	1	1.2	82
Non-Traditionals	77	89.5	-	-	1	1.2	5	5.8	3	3.5	86
Total Sample	507	96.2	2	.04	3	0.6	11	2.1	4	0.8	527

APPENDIX C

SELECTED RAW DATA

NUMBER OF ESSAY EXAMS WRITTEN DURING THE CURRENT SCHOOL YEAR

Subgroup	Less than 0		Less than 5		5-10		10-20		more than 20		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	13	13.1	39	39.4	35	35.4	8	8.1	4	4.0	99
Sophomores	18	20.5	29	33.0	27	30.7	12	13.6	2	2.3	88
Juniors	2	2.3	38	43.2	27	30.7	19	21.6	2	2.3	88
Seniors	4	4.8	26	31.0	20	23.8	20	23.8	14	16.7	84
Graduates	8	9.9	24	29.6	36	44.4	13	16.0	-	-	81
Non-Traditionals	9	10.5	34	39.5	23	26.7	16	18.6	4	4.7	86
Total Sample	54	10.3	190	36.1	168	31.9	88	16.7	26	4.9	526

NUMBER OF TERM PAPERS OR OTHER WRITTEN REPORTS WRITTEN DURING THE CURRENT SCHOOL YEAR

Subgroup	Less than 0		Less than 5		5-10		10-20		more than 20		Total
	n	%n	n	%n	n	%n	n	%n	n	%n	n
Freshmen	14	14.1	59	59.6	18	18.2	6	6.1	2	2.0	99
Sophomores	20	23.0	38	43.7	24	27.6	4	4.6	1	1.1	87
Juniors	3	3.4	57	64.8	17	19.3	10	11.4	1	1.1	88
Seniors	5	5.9	31	36.5	23	27.1	16	18.8	10	11.8	85
Graduates	1	1.2	23	28.0	34	41.5	19	23.2	5	6.1	82
Non-Traditionals	11	12.6	36	41.4	23	26.4	12	13.8	5	5.7	87
Total Sample	54	10.2	244	46.2	139	26.3	67	12.7	24	4.5	528

RESPONDENTS' RATINGS OF RELATIONSHIPS
WITH FACULTY MEMBERS

Score / Subgroup	1 n	1 %n	2 n	2 %n	3 n	3 %n	4 n	4 %n	5 n	5 %n	6 n	6 %n	7 n	7 %n	Total n
Freshmen	1	1.0	3	3.0	11	11.1	15	15.2	32	32.3	25	25.3	12	12.1	99
Sophomores	-	-	1	1.1	6	6.8	6	6.8	28	31.8	37	42.0	10	11.4	88
Juniors	-	-	1	1.1	4	4.5	7	8.0	29	33.0	38	43.2	9	10.2	88
Seniors	2	2.4	2	2.4	1	1.2	8	9.4	22	25.9	37	43.5	13	15.3	85
Graduates	1	1.2	3	3.7	1	1.2	9	11.0	11	13.4	32	39.0	25	30.4	82
Non-Traditionals	-	-	3	3.4	2	2.3	16	18.2	16	18.2	38	43.2	13	14.8	88
Total Sample	4	0.8	13	2.5	25	4.7	61	11.5	138	26.0	207	39.1	82	15.5	530

RESPONDENTS' SELF-ESTIMATES OF GAIN TOWARD THE ACQUISITION
OF BACKGROUND AND SPECIALIZATION FOR FURTHER EDUCATION

Score / Subgroups	Very little n	Very little %n	Some n	Some %n	Quite a bit n	Quite a bit %n	Very much n	Very much %n	Total n
Freshmen	10	10.3	46	47.4	38	39.2	3	3.1	97
Sophomores	12	14.0	43	50.0	21	24.4	10	11.6	86
Juniors	4	4.5	22	25.0	39	44.3	23	26.1	88
Seniors	5	5.9	16	18.8	43	50.6	21	24.7	85
Graduates	2	2.4	11	13.4	47	57.3	22	26.8	82
Non-traditionals	7	8.0	23	26.1	41	46.6	17	19.3	88
Total Sample	40	7.6	161	30.6	229	43.5	96	18.3	526

RESPONSES TO: "HOW WELL DO YOU LIKE COLLEGE?"

Subgroup	Don't Like n	%n	Neutral n	%n	Like n	%n	Enthusiastic n	%n	Total n
Freshmen	1	1.0	10	10.1	58	58.6	30	30.3	99
Sophomores	3	3.4	13	14.8	40	45.5	32	36.4	88
Juniors	2	2.3	8	9.1	41	46.6	37	42.0	88
Seniors	5	5.9	9	10.6	44	51.8	27	31.8	85
Graduates	1	1.2	10	12.2	21	25.6	50	61.0	82
Non-Traditionals	3	3.4	9	10.2	43	48.9	33	37.5	88
Total Sample	15	2.8	59	11.1	247	46.6	209	39.4	530

RESPONSES TO: "IF YOU COULD START OVER AGAIN, WOULD YOU GO TO THE SAME COLLEGE YOU ARE NOW ATTENDING?"

Subgroup	No n	%n	Probably No n	%n	Probably yes n	%n	Yes n	%n	Total n
Freshmen	4	4.0	14	14.1	47	47.5	34	34.3	99
Sophomores	2	2.3	7	8.0	46	52.3	33	37.5	88
Juniors	3	3.4	18	20.5	47	53.4	20	22.7	88
Seniors	7	8.2	14	16.5	38	44.7	26	30.6	85
Graduates	5	6.1	10	11.8	50	61.0	17	20.7	82
Non-Traditionals	3	3.5	22	25.6	34	39.5	27	31.4	86
Total Sample	24	4.5	85	16.1	262	49.6	157	29.7	528

APPENDIX D

ANALYSIS OF VARIANCE OF ITEMS USED FOR COMPARISON IN THE PACE COLLEGE STUDENT EXPERIENCES QUESTIONNAIRE

ANALYSIS OF VARIANCE

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
1. Library Experiences	Between groups	5	2296.31	459.26	22.98	0.00
	Within groups	520	10394.47	19.99		
	Total	525	12690.78			
2. Faculty Experiences	Between groups	5	3470.81	694.16	27.44	0.00
	Within groups	521	13182.27	25.31		
	Total	526	16653.08			
3. Course Learning	Between groups	5	573.14	114.63	5.19	0.0001
	Within groups	518	11447.86	22.10		
	Total	523	12020.99			
4. Art, Music Theater	Between groups	5	523.97	104.79	3.62	0.0032
	Within groups	505	14625.49	28.96		
	Total	510	15149.46			
5. Union	Between groups	5	1790.06	358.01	10.81	0.00
	Within groups	521	17261.55	33.13		
	Total	526	19051.61			
6. Athletics/ recreation	Between groups	5	1148.80	229.76	5.00	0.0002
	Within groups	519	23875.24	46.00		
	Total	524	25024.05			
7. Clubs & Organizations	Between groups	5	2735.93	547.19	13.66	0.00
	Within groups	511	20463.57	40.05		
	Total	516	23198.50			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
8. Writing Experiences	Between groups	5	298.04	59.61	1.99	0.08
	Within groups	519	15573.55	30.01		
	Total	524	15871.60			
9. Personal Experiences	Between groups	5	522.35	104.47	3.04	0.01
	Within groups	519	17811.83	34.32		
	Total	524	18334.18			
10. Student Acquaintances	Between groups	5	211.97	42.39	1.21	0.30
	Within groups	522	18304.99	35.07		
	Total	527	18516.96			
11. Science/ Technology	Between groups	5	288.90	57.78	1.17	0.32
	Within groups	516	25414.76	49.25		
	Total	521	25703.66			
12. Science Principles	Between groups	5	191.25	38.25	4.33	0.0007
	Within groups	519	4587.32	8.84		
	Total	524	4778.57			
13. Science Processes	Between groups	5	20.53	4.11	0.57	0.7242
	Within groups	522	3770.09	7.22		
	Total	527	3790.62			
14. Computer	Between groups	5	103.91	20.78	2.06	0.069
	Within groups	522	5258.15	10.07		
	Total	527	5362.06			

ANALYSIS OF VARIANCE (cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
15. Dormitory, Fraternity/ Sorority	Between groups	5	1015.72	203.14	5.31	0.0001
	Within groups	192	7341.15	38.24		
	Total	197	8356.87			
16. Topics of Conversation	Between groups	5	565.27	113.05	3.90	0.0018
	Within groups	515	14935.53	29.00		
	Total	520	15500.80			
17. Information in Con- versations	Between groups	5	237.15	47.43	5.44	0.0001
	Within groups	518	4519.01	8.72		
	Total	523	4756.16			
18. Assigned Books	Between groups	5	4.51	0.90	1.14	0.34
	Within groups	518	410.23	0.79		
	Total	523	414.74			
19. Non-assigned Books	Between groups	5	47.61	9.52	10.21	0.00
	Within groups	519	483.91	0.93		
	Total	524	531.51			
20. Essay Exams	Between groups	5	28.63	5.73	5.71	0.00
	Within groups	520	521.91	1.00		
	Total	525	550.54			
21. Term Papers	Between groups	5	58.04	11.61	13.21	0.00
	Within groups	522	458.58	0.88		
	Total	527	516.62			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
22. Satisfaction	Between groups	5	7.47	1.49	0.88	0.50
	Within groups	522	891.25	1.71		
	Total	527	898.72			
23. Like College	Between groups	5	7.17	1.43	2.56	0.03
	Within groups	524	293.66	0.56		
	Total	529	300.83			
24. Attend Again	Between groups	5	6.21	1.24	1.96	0.08
	Within groups	522	330.70	0.63		
	Total	527	336.91			
25. Student Initiative	Between groups	5	0.17	0.03	0.12	0.99
	Within groups	520	165.30	0.32		
	Total	525	165.47			
26. Academic Emphasis	Between groups	5	19.79	3.96	3.03	0.01
	Within groups	524	684.88	1.31		
	Total	529	704.67			
27. Esthetic Qualities	Between groups	5	27.18	5.44	3.22	0.007
	Within groups	524	885.19	1.69		
	Total	529	912.37			
28. Critical Emphasis	Between groups	5	15.82	3.16	2.07	0.07
	Within groups	523	799.33	1.53		
	Total	528	815.16			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
29. Vocational Emphasis	Between groups	5	8.95	1.79	1.09	0.37
	Within groups	522	858.86	1.65		
	Total	527	867.81			
30. Course Relevance	Between groups	5	15.33	3.07	1.74	0.12
	Within groups	523	923.03	1.76		
	Total	528	938.37			
31. Student Relationships	Between groups	5	76.91	15.38	9.94	0.00
	Within groups	524	810.84	1.55		
	Total	529	887.75			
32. Faculty Relationships	Between groups	5	24.69	4.94	3.35	0.006
	Within groups	524	773.01	1.48		
	Total	529	797.70			
33. Administrative relationships	Between groups	5	15.68	3.14	1.31	0.26
	Within groups	524	1253.82	2.39		
	Total	529	1269.50			
34. Vocational Training	Between groups	5	71.45	14.29	20.79	0.00
	Within groups	521	358.11	0.69		
	Total	526	429.56			
35. Specialization Further Education	Between groups	5	44.72	8.94	14.00	0.00
	Within groups	520	332.31	0.64		
	Total	525	377.03			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
36. General Education	Between groups	5	11.26	2.25	4.29	0.0008
	Within groups	520	273.15	0.53		
	Total	525	284.41			
37. Relevant Information	Between groups	5	27.12	5.42	10.11	0.00
	Within groups	520	278.93	0.54		
	Total	525	306.06			
38. Arts	Between groups	5	21.56	4.31	5.55	0.0001
	Within groups	521	404.67	0.78		
	Total	526	426.23			
39. Literature	Between groups	5	35.84	7.17	10.07	0.00
	Within groups	521	370.99	0.71		
	Total	526	406.83			
40. Clear/ Effective Writing	Between groups	5	22.24	4.45	6.99	0.00
	groups	521	331.47	0.64		
	Total	526	353.71			
41. Computers	Between groups	5	25.03	5.01	5.46	0.0001
	Within groups	518	474.94	0.92		
	Total	523	499.97			
42. Cultural Awareness	Between groups	5	7.20	1.44	1.88	0.20
	Within groups	520	398.44	0.77		
	Total	525	405.64			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F probability
43. Values	Between groups	5	6.81	1.36	1.78	0.11
	Within groups	521	398.06	0.76		
	Total	526	404.87			
44. Understanding Self	Between groups	5	5.90	1.18	2.03	0.07
	Within groups	521	303.08	0.58		
	Total	526	308.98			
45. Understanding Others	Between groups	5	8.40	1.68	2.88	0.01
	Within groups	521	304.53	0.58		
	Total	526	312.93			
46. Team Member	Between groups	5	12.60	2.52	3.44	0.005
	Within groups	521	382.20	0.73		
	Total	526	394.80			
47. Health/ Fitness	Between groups	5	6.11	1.22	1.31	0.26
	Within groups	514	479.70	0.93		
	Total	519	485.81			
48. Science/ Experi- mentation	Between groups	5	5.34	1.07	1.24	0.29
	Within groups	521	448.53	0.86		
	Total	526	453.87			
49. Scientific Developments	Between groups	5	5.84	1.17	1.48	0.20
	Within groups	521	412.14	0.79		
	Total	526	417.98			

ANALYSIS OF VARIANCE (Cont.)

Item	Source	D.F.	Sum of Squares	Mean Squares	F ratio	F Probability
50. Science Applications	Between groups	5	6.96	1.39	1.80	0.11
	Within groups	521	402.65	0.77		
	Total	526	409.61			
51. Analytical/ Logical	Between groups	5	15.46	3.09	5.26	0.0001
	Within groups	521	306.27	0.59		
	Total	526	321.73			
52. Quantitative Thinking	Between groups	5	10.19	2.04	2.73	0.02
	Within groups	518	386.98	0.75		
	Total	523	397.17			
53. Synthesize Ideas	Between groups	5	10.62	2.12	4.13	0.001
	Within groups	521	268.19	0.51		
	Total	526	278.81			
54. Independent Learning	Between groups	5	15.57	3.11	5.52	0.0001
	Within groups	521	293.66	0.56		
	Total	526	309.23			