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ABSTRACT

The literature on personal development, student involvement and satisfaction is reviewed in the following categories: the warrant for personal development as a desirable college outcome; conceptual and theoretical foundations of personal development; empirical research on personal development during college; the undergraduate experience; satisfaction; involvement; observable/measurable indices of personal development; and implications for assessment teams. Eight principles are offered to guide the work of assessment teams. An extensive unannotated bibliography is provided, and an annotated bibliography of 43 items is provided. The following are appended as additional information that assessment teams may find useful in documenting personal development and the quality of student life: personal development outcomes taxonomy; generativity checklist; a model for a student development outcome assessment; possible outcomes assessment areas; advantages and disadvantages of different approaches to assessment; and data-gathering categories. (KM)

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PERSONAL DEVELOPMENT AND THE COLLEGE STUDENT EXPERIENCE: A REVIEW OF THE LITERATURE

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Executive Summary

PERSONAL DEVELOPMENT AND THE COLLEGE STUDENT EXPERIENCE: A REVIEW OF THE LITERATURE

This report summarizes the literature on personal development, student involvement, and satisfaction. Appended are a comprehensive list of references, an annotated bibliography with 43 entries, and additional information that assessment teams may find useful in documenting personal development and the quality of student life.

The Warrant for Personal Development as a Desirable College Outcome

Not everyone agrees that a college or university should be responsible for development of the "whole student" (Spaeth & Greeley, 1970). Most observers, however, acknowledge that the cognitive and affective dimensions of personality are inextricably intertwined and that the college experience encourages development in both domains. Evidence is mounting (Naisbett, 1982; Toffler, 1981) that, in the future, a higher premium will be placed on critical thinking, empathy, tolerance, communication skills, and the ability to conceptualize and integrate experience (Vermilye, 1977). These competencies are often associated with the personal development category of college outcomes (Appendix A). Personal development includes:

> Those attitudes, skills, and values that enable an individual to understand and reflect on one's thoughts and feelings; to recognize and appreciate the differences between one's self and others; to successfully manage one's personal affairs; to care for those less fortunate; to relate meaningfully with others through friendships, marriage, and civic and political entities; to determine personally and socially acceptable responses in various situations; and to be economically self-sufficient. These qualities are usually associated with satisfaction, physical and psychological well-being, and a balanced, productive life of work and leisure.

Conceptual and Theoretical Foundations of Personal Development

Theories describing personal development can be categorized into six clusters: cognitive developmental, psychosocial, maturity, typology, person-environment interaction (Knefelkamp, Widick & Parker, 1978), and spirituality. Cognitive developmental theories (e.g., Gilligan, 1982; Kitchener & King, 1986; Kohlberg, 1971; Perry, 1970) portray development as a sequence of irreversible stages promoted by incremental, qualitative changes in the processes through which individuals perceive and reason about their experiences. Most cognitive developmental theories have identified universal patterns or stages that are, in some cases, directly linked with chronological age periods.

Psychosocial theories (e.g., Chickering, 1969) suggest that over the life cycle, an individual must resolve challenges and successfully deal with developmental tasks characteristic of a sequence of stages. As with cognitive developmental theories, psychosocial stages tend to follow a chronological sequence. A central theme is the development of a clear sense of identity although other tasks (e.g., competence, managing emotions, intimacy) are also important.

Maturity models (e.g., Heath, 1968) tend to be abstract and all encompassing. In trying to account for changes in behaviors and attitudes over the life span, they subsume other developmental models and theories. Typology models are based on the premise that patterns of socialization and cultural differences influence development and result in persistent patterns of behavior across groups of students. Typologies such as Myers-Briggs (Myers & McCaulley, 1985) and Kolb (1976) reflect preferences for learning and integrating experience; however, no individual uses their preferred style in every situation.

Person-environment interaction models suggest that to understand an

individual's behavior, the environmental context or situation within which the behavior occurs must be taken into account (Walsh, 1973). These models offer explanations for why some students may find some institutional environments compatible and others less appealing--even debilitating.

Although spiritual development (e.g., Fowler, 1981) is not often a central purpose of state-supported institutions, spirituality is of interest to many students. Assessment teams must determine whether spiritual development is to be assessed as a separate domain or whether information from other measures adequately represent spirituality.

Empirical Research on Personal Development

For most students, college attendance is associated with: social maturation and competence; increases in appreciation for the aesthetic qualities of life, clarification of religious views, autonomy and non-authoritarianism; and decreases in political naivete and dogmatism. Students usually become more introspective and more aware of interests, values and aspirations (Astin, 1977; Bowen, 1977; Feldman & Newcomb, 1969). College graduates hold better jobs, make more money, are more efficient consumers, are more satisfied with their lives, and more likely to participate in community events than those who have not gone to college (Pace, 1979). Apparently the college experience leaves a "residue" (Bowen, 1977) characterized by an openness to new ideas, a facility for meeting and dealing with different kinds of people, and a sense of competence and confidence that allows the college educated person to deal effectively with different kinds of situations and problems.

The Undergraduate Experience

The quality of the undergraduate experience is often estimated using indices of institutional resources, such as student ability, faculty credentials, and perceived affluence of the institution. More important

than the resources, however, are what students do with faculty, peers, and the facilities and what happens to students as a result. In general, the more effort students expend in curricular and co-curricular activities, the more they benefit intellectually and socially from college. Involved students are also more likely to be satisfied and live productive, satisfying lives after college. Students at certain kinds of institutions (e.g., selective, residential campuses) have an advantage as they spend more time with faculty and peers; therefore, it is not surprising that commuter students, for example, do not show the same degree of change on personal development measures as traditional age residential students.

Satisfaction

The degree to which students are satisfied is a key variable in studies of attrition, retention, student-institution fit, and program evaluation. Satisfaction is positively related to persistence, achievement, academic and social integration, and student-faculty interaction. It is not clear whether satisfaction causes these positive outcomes or whether good grades, faculty contact, and so forth result in satisfaction. Nevertheless, the positive relationship between satisfaction and interaction with faculty, staff, and peers underscores the need for programs and policies that maximize opportunities for students to spend time with people from these groups.

Involvement

The involvement principle is composed of two elements: (a) the investment of psychological energy (quality of effort) in an activity, and (b) the time devoted to the activity (Astin, 1984). Certain conditions promote involvement: (a) a clear coherent institutional purpose which gives direction to faculty, students, and staff; (b) size (both perceived or psychological as well as number of students and physical expansiveness of

the campus); (c) continuity evidenced by long term relationships with faculty and peers; and (d) generativity reflected by supportive persons who mix freely with each other and are willing to share the meaning of their experiences (Appendix B).

Most students participate in one or more out-of-class activities (e.g., cultural, social, political). It is not surprising, therefore, that personal development is associated with participation in such activities. For example, out-of-class experiences are related to: satisfaction with college, persistence, development of skills such as team work, decision making and planning, the establishment of mature, intimate interpersonal relationships, and post-college achievements such as vocational achevement and involvement in civic activities.

Personal development is encouraged through participation in different kinds of activities, taking responsibility for how time is used, discovering how others think and feel, working with others whose intellectual development and social skills are more advanced than one's own, and participating in activities that present substantive political, moral or personal challenges. Institutions with large numbers of part-time, older, minority, and commuting students face significant challenges in encouraging involvement. Suggestions are offered for compensatory programs that might increase student participation in campus activities.

Observable/Measurable Indices of Personal Development

The following behaviors may be evidence of personal growth during college: improved decision making, taking initiative, presenting persuasive arguments, ability to adapt to new situations, capacity to cope with problems, openness to new ideas, cultural awareness, effective interpersonal skills, concern for others, and responsible behavior. Other

examples of what assessors might look for when documenting personal development are listed in Appendices C and D.

Implications For Assessment Teams

Eight principles are offered as a general framework to guide the work of assessment teams.

1. Assessment explicitly addresses the institutional mission and the expectations and aspirations of students.

2. Institutional values are communicated clearly and consistently through the assessment process.

3. Assessment activities are public, collaborative, and educative.

4. Assessment takes into account the degree of student-institution fit.

5. Assessment results include estimates of the effort students put forth in academic and out-of-class activities.

6. Assessment results describe how out-of-class activities contribute to the purposes of the academic program.

7. Multiple forms of data gathering are used to gather data (Appendices E and F).

8. Assessment is action-oriented and provide information for policy formulation and decision making.

The literature on personal development and the college experience suggests that students change in many positive ways during college. Assessing these changes and monitoring the quality of student life are challenging, important tasks and require a high degree of collaboration on the part of faculty, academic administrators, student life administrators, and students.

PERSONAL DEVELOPMENT AND THE STUDENT EXPERIENCE: A REVIEW OF THE LITERATURE

Introduction and Overview

After three centuries of episodic interest, the higher education community now seems serious about documenting what happens to students who attend particular colleges and universities. Since 1985 the assessment bandwagon has been rolling. Some observers expected assessment to be a passing fancy which would be replaced by other more pressing, au courrant issues (Marchese, 1987). However, legislative mandates, the popular media, higher education scholars, and the 700 people who attended the 1988 Assessment Forum sponsored by the American Association for Higher Education--taken together--suggest that the colleges and universities are responding to the clarion call for assessment.

The motivation for assessment varies. In Tennessee, financial incentives are offered to institutions; in Colorado, funding for a college and university will be reduced if an institution is not collecting assessment data (Ewell & Boyer, 1988). In New Jersey, the Department of Higher Education is providing leadership and resources to help institutions develop context-specific strategies for collecting information about students' personal development that has relevance for institutional policies and programs.

To help New Jersey faculty and staff plan for and implement assessments of personal development, this paper summarizes the literature on personal development, student involvement, and satisfaction, all of which are important to a high quality undergraduate experience. Examples of student behaviors are described that may serve as indicators of personal development and the quality of student life. A companion paper by Gary Hanson, University of Texas at Austin, will describe the instruments available for assessing

various aspects of personal development.

Organization of the Report

The report is organized in eight parts:

I. The Warrant For Personal Development and Definition

II. Conceptual and Theoretical Foundations of Personal Development

III. Research on Personal Development

IV. The Undergraduate Experience

V. Satisfaction

VI. Student Involvement

VII. Indicators of Personal Development

VIII. Implications For Assessment Teams

Two lists of references are included. One is a comprehensive bibliography of the best theory and research related to the college student experience. The annotated bibliography describes selected works that faculty and staff may wish to review as they plan a campus-based assessment strategy. The appendices provide illustrations of student behaviors that may be evidence of personal development and compare the advantages and disadvantages of different approaches to collecting assessment information.

Part I: The Warrant for Personal Development as a Desirable College Outcome

Without question, the acquistion of knowledge and development of the intellect have been, are now, and will continue to be important goals of higher education. Since Socrates ("We shall begin by educating mind and character, shall we not?"), higher education has been expected to contribute to the growth of the whole person--through the cultivation of practical competence and affective dispositions, including the moral, religious, emotional, social, and aesthetic aspects of the personality (Bowen, 1977; Winter, McClelland & Stewart, 1981). "We must educate for empathy,

compassion, trust, non-exploitiveness, non-manipulativeness, for self-growth and self-esteem, for tolerance of ambiguity, for acknowledgement of error, for patience, for suffering" (Michael, 1968, p. 109).

Not everyone agrees, of course, that a college or university should take direct responsibility for the "total" development of the student (Carnegie Commission on Higher Education, 1973; Spaeth & Greeley, 1970). A pervasive belief system exists in many colleges and universities that questions the importance of values, emotions, and personal growth and places a premium on cognitive rationality and intellectual development (Kuh, Shedd & Whitt, 1987).

> "The philosophical basis for dualism [the independence of intellectual and affective functioning] can be found in a Cartesian split between the mind and the physical ground--the bifurcation of human experience into (a) the internal and subjective and (b) the objective and natural (Lucas, 1985). In institutions of higher education, dualism is manifested in the distinctions drawn between intellectual functioning and personal development, the cognitive and the affective, fact and value, and the sciences and the humanities....these divisions are not value free; they reflect institutionalized priorities" (Kuh, Shedd & Whitt, 1987, p. 255).

Nevertheless, even the harshest critics of the "whole student" view typically conclude that the cognitive and affective dimensions of personality are inextricably intertwined and that the college environment provides important opportunities and challenges for students to develop in both domains.

> "Distinctions among the cognitive, affective, and practical goals [of higher education] are blurred, and there is much overlap among

them. Moreover, we do not imply that the cognitive and practical outcomes will be derived solely from formal curricula, or that the affective outcomes would be produced solely through extra-curricula academic life. All three types of goals may be achieved in part from both information instruction and extra-curricular experiences" (Bowen, 1977, p. 39).

Trends

Daniel Yankelovich (1981) has pointed to a movement in society away from the "meism" or dominant individualism that characterized the 1970s and early 1980s (Bellah, Madsen, Sullivan, Swidler & Tipton, 1985). Yankelovich asserted that American society is moving toward an ascendancy of community or interdependence over individualism. Lester Thurow, Dean of the Sloan School of Management at MIT (J. May, personal communication, August 15, 1988) predicted that effective communication skills (e.g., public speaking, the ability to get along with persons different from oneself, the use of persuasive language in written and oral presentations) will be as important as the knowledge one has about the field.

In most fields, it is no longer possible for a person to remain current with discoveries (Naisbett, 1982). Relatively few fields have a knowledge base with a half life more than 5 to 10 years. That is, half of what a person learns during college will be replaced by new information and technology within a decade. The nature of work in the 21st century will provide workers with considerable autonomy and require that they interact with many different types of people. The "personality" of the future will be one which can successfully cope with ambiguous and complex work tasks and interact with co-workers and clients who are increasingly diverse in terms of backgrounds and cultures (Toffler, 1981). As more people are employed in the growing service sector of our national economy, communication skills coupled with

some form of post-secondary education will be required for most new jobs. In this sense it is not surprising that there is a close correspondence between attributes usually associated with the personal development domain and "competencies" frequently mentioned as determinants of successful performance in the work world: critical thinking, empathy, tolerance, facility at communication, and the ability to conceptualize and integrate experience (Vermilye, 1977).

An integrated system of values and ethics, a cornerstone of personal development, is crucial for an educated citizenry (Collins, 1983; Morrill, 1980). Values include an appreciation of cultures different from one's own, spirituality, a sense of civic duty, and social, political, and historical consciousness. As a link between knowledge and action, values enable one to transcend "momentary pain and pleasure...to coordinate a virtually unlimited number of experiences encompassing the whole of one's life" (Appleton, Rhatigan & Briggs, 1977, p. 28).

Leadership, an underdeveloped commodity in American society at present, requires traits such as maturity, vision, commitment, persuasion, energy, institution, and common sense to name a few (Gardner, 1986). Consensus-seeking, compromise, and negotiation are indispensable skills.

College grades, once considered to be a sacrosanct index of college success, are not related to any aspect of post-college accomplishment other than admission to graduate or professional school (Cohen, 1983; Hoyt, 1966). An analysis of the relationships of grades to indicators of career success, such as income, job effectiveness ratings, and happiness, found that grades explained an average of only 2.4 percent of the variance (Samson, Graue, Weinstein & Walberg, 1984). The AT&T Human Resources Studies Group (1984) concluded that "grades should be looked upon in selection [of managers] as indicators of intellectual ability and having standards for high quality

work. They should not be expected to indicate personal or administrative skills, motivation to advance, or ability to cope with ambiguity or stress, all of which are also important in management" (p. 32).

According to James McPartland of the Center for Social Organization of Schools at Johns Hopkins, employers value most an employee's ability to accept responsibility and to get along with others. Cross (1975) suggested that we have grossly underestimated the number of people who can become more effective communicators, who can attain higher levels of self confidence and, thus, who have the potential to make valuable contributions to society and family life. The changing demographics in the United States (Hodgkinson, 1985), an interrelated world economy, an influx of persons for whom English is a second language, and other factors (Naisbett, 1982; Toffler, 1981) will place a premium on college educated persons who get along well and communicate effectively.

Finally, consider the observation of William Bowen, a former Princeton University president: Higher education must contribute to "an enhanced capacity for developing one's personal qualities to the highest extent, for enjoying things of beauty, for sympathetic understanding of other peoples, and for the development of constructive relationships with others--an enhanced capacity, in short, to do nothing less than lead a full life" (Bowen in Hoback & Perry, 1983; p. 332).

These commentators suggest that the skills and attitudes associated with the personal development domain, described more fully in subsequent sections, warrant the attention by faculty, administrators, students, and others with an interest and investment in higher education.

Personal Development: A Working Definition

A succinct definition of personal development is elusive. Several typologies have been developed to categorize and define outcomes of college

(Ewell, 1984; Feldman & Newcomb, 1969; Lenning, 1976; Micek, Service & Lee, 1975). Bowen (1977) divided desirable outcomes of college for individual students into three categories: cognitive learning, emotional and moral development, and practical competence. One of the qualities associated with cognitive learning, intellectual tolerance, can be viewed as a bridging variable between the cognitive/intellectual and personal development domains. Intellectual tolerance is reflected by a willingness to explore new ideas, an appreciation of cultural diversity, and a capacity to function satisfactorily in a pluralistic society as evidenced by enlightened political and racial/ethnic attitudes. As will be noted later, these qualities are often by-products of activities associated with out-of-class experiences.

The emotional and moral development category includes personal self-discovery, psychological well-being, human understanding, values and morals, religious interests, and the refinement of taste and conduct. The practical competence category includes: an achievement orientation, adaptability, leadership and citizenship, economic productivity, a sound family life, consumer efficiency, a balance between work and leisure, and a health/wellness orientation. It seems reasonable to conclude that assessments of personal development should consider most, if not all, of the qualities contained in Bowen's (1977) emotional/moral and practical competence categories.

The simplest approach to resolving the definitional problem is to assume that personal development includes any quality or behavior that is not subsumed under the intellectual or cognitive development domain. We offer the following working definition of personal development to focus the activities of assessment committees in New Jersey colleges and universities:

> **Personal development includes those attitudes, skills, and values that enable an individual: to understand and reflect on one's thoughts and feelings; to recognize and appreciate the differences**

between oneself and others; to successfully manage one's personal affairs; to care for those less fortunate; to relate meaningfully with others through friendships, marriage, and civic and political entities; to determine personally and socially acceptable responses in various situations; and to be economically self-sufficient. These qualities are usually associated with satisfaction, physical and psychological well-being, and a balanced, productive life of work and leisure.

Implicit in the definition are attitudes and skills that equip college educated persons to provide leadership in a variety of settings and well as to be effective members of groups. Thus, the personal development domain is broad, comprehensive, and integral to achievement and success during and after college. In Appendix A, we enumerate the traits and characteristics consistent with this definition.

Part II: Conceptual and Theoretical Foundations of Personal Development

In this section we briefly review the major theoretical perspectives on personal development during the college years. Two caveats are in order. First, most of the theoretical work of development during college is based on studies of traditional age college students, primarily White students. Adult development theories (Gould, 1972; Levinson, 1978; Schlossberg, 1984; Valliant, 1977) describe transitions and developmental stages typical of adults 25 years of age and older. Although adult development theories are based on non-college populations, these theories can be useful in identifying issues with which adult learners typically contend when attending college. For example, adult development theories have been used to understand issues of importance to graduate students (Kuh & Thomas, 1983). The following review is dominated by perspectives on traditional age students although, when

appropriate, concepts from adult development models are introduced to illuminate the college going experience for non-traditional learners.

The second caveat is related to the scope of the personal development definition. During the past two decades, some of the most interesting theoretical work related to human development during the college years is appropriately classified in the cognitive-intellectual domain. Although the cognitive-intellectual branch is often thought to be distinct from personal development theories, the interaction between the cognitive-intellectual and personal development domains is too important to overlook. It is difficult, if not irresponsible, to conduct assessments of student growth and development without taking into account intellectual and critical thinking skills.

The most popular approaches to understanding personal development and related behaviors can be categorized into five theory clusters: cognitive developmental, psychosocial, maturity, typology, and person-environment interaction models (Knefelkamp, Widick & Parker, 1978). Other typologies of student development theories are available (e.g., Rodgers, 1980, in press). However, the Knefelkamp et al. (1978) scheme is perhaps the best known and addresses areas relevant to the assessment of personal development in New Jersey colleges and universities. We have added a sixth area of development that is often overlooked, spirituality.

Cognitive-developmental Theories

How people think affects how they feel, the meaning they give to their values, and their personal development. Thus, the relationship between a student's capacity to reason clearly, their sense of identity, and how they feel must be taken into account in assessments for estimating change and for designing curriculum or out-of-class experiences for students that enhance personal development.

Cognitive developmental theories portray development as a sequence of

irreversible stages promoted by incremental, qualitative changes in the processes through which individuals perceive and reason about their experiences. Most cognitive developmental theories describe universal patterns of stages that individuals experience, and in some cases, are directly linked with chronological age periods.

Perhaps the best known cognitive developmental theory is that of Perry (1970) who postulated nine positions of intellectual and ethical reasoning during the college years. Subsequent research has found that a large majority of first year and many second year traditional age college students are in one of Perry's first three positions, the dualism stage; that is, they expect right and wrong answers and are unable to differentiate among subtle shades of meaning and the context-bound nature of information. In academic matters and in other areas in which they lack confidence or experience, dualistic students prefer to be told what to do and how to do it.

The process through which developmental change takes place is interactive: students encounter problems, dilemmas, or ideas that demand accommodation or changes in their way of thinking. As students develop intellectually and ethically, they become able to recognize the existence of different views of the same phenomenon or issue, all of which seem equally plausible, a developmental stage labeled "multiplicity." In a more advanced stage, "relativism," discriminations are made among various views; some interpretations are recognized as more defensible than others. The most desirable state of affairs is a student who nears "commitment" in his or her own reasoning ability. At this point, an individual is able to identify and appreciate a variety of views on a given topic but, after examining his or her own thinking, becomes comfortable with a personal position on the matter. However, a committed student may adopt a different stance should new evidence warrant the change.

Another view of cognitive development is the reflective judgment model (Kitchener & King, 1981) which describes the shifts that occur in assumptions about knowledge and the way in which adolescents and adults justify their beliefs or decisions. Based on the work of Perry (1970) and Broughton (1975), the reflective judgment model has seven sets of assumptions about the certainty of knowledge (e.g., absolute, probable), what can be known (e.g., facts, interpretations), and how knowledge is acquired.

For example, stage one is a "copy view of knowledge, the belief that there is an absolute correspondence between what is perceived and what is" (Kitchener & King, in press). Stage three is distinguished by the acknowledgement that in some areas truth is temporarily inaccessible because knowledge cannot be immediately known. In stage five, knowledge can only be understood within the context in which the knowledge is to be used. The final stage is characterized by the belief that while reality is never a "given," interpretations of acts can be synthesized into claims about the nature of the problem under consideration. Thus, it is possible that certain interpretations of difficult problems have greater truth value than others. A person operating at the highest level of reflective judgment (stage 7) may conclude that, similar to Perry's position of commitment, one's position on an issue is a reasonable solution for the moment.

Kohlberg (1969, 1971) and Gilligan (1977, 1982) describe the development of moral reasoning functions. Kohlberg postulated three levels of moral reasoning: (a) pre-conventional, (b) conventional, and (c) post-conventional or autonomous or principled. Each level has two stages. Answers to a set of moral dilemmas are used to describe the cognitive constructs that lead to a decision. Modes of reasoning are examined, not the substance of the decision. Important themes are role-taking and the principle of justice. College students are often at stage three ("what is good is that which pleases

others"), or stage four (a law and order or duty orientation). The final stage is characterized by ethical principles of the person's own choosing that reflect justice, reciprocity of rights, and respect for the individual rights of others.

Gilligan's (1982) theory extends and transforms Kohlberg's work. Her thesis is that men and women differ in their approaches to moral and ethical situations. Women tend to employ an ethic of care and responsibility which emphasizes the relational factors in decision contexts. Men are more likely to emphasize justice--determining what is appropriate, right, or "just" in a given situation.

Psychosocial Theories

Building on the work of Erikson (1963), psychosocial theories suggest that over the life cycle, an individual must resolve challenges and personal growth issues characteristic of a sequence of stages. Each developmental phase or stage is associated with specific tasks (e.g. certain skills and attitudes leading to the development of identity) which must be mastered to successfully manage the transition from one stage to the next. In general, developmental stages follow a chronological sequence; that is, at certain ages, particular facets of the emerging personality are central. Timing and the manner in which individuals face these tasks are determined to a large extent by society and the culture in which the individual lives.

The best known psychosocial theory of college student development is that of Chickering (1969). Central to the theory are seven vectors of development which every student must master: developing confidence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity.

"One gets the sense that each [vector] can be seen as a series of developmental tasks, a source of concern, and a set of outcomes.

For example, in young adulthood the student encounters various societal demands which take the form of "tasks"; the college years are a time when certain "things" must be done; the student must learn to think, become independent, and start a career... The vectors specify...the nature and range of those tasks" (Knefelkamp et al., 1978, p. 21).

A dominant theme in the psychosocial theory cluster is the emergence of a clear sense of identity. While the college years are important, a person's identity does not become fully established until adulthood--choosing someone with whom to live and love, selecting and working in one's chosen career, and developing an internally consistent and coherent set of values. The developmental tasks set forth in the psychosocial cluster are non-recursive; that is, certain issues--such as competence, interpersonal intimacy, and identity--will resurface in different forms at various times throughout the college years and beyond. For example:

"An older, returning student in encountering an environment with new and different demands will also be pressed to re-examine the identity issue; in fact it could be argued that the return to college is a reflection of societal changes which unsettle the self-definitions of adults, re-raising identity questions for further examination and synthesis" (Knefelkamp et al., 1978, p. 10).

Since the human experience is a process of "becoming" (Allport, 1955), one's identity is never completely established but continues to evolve over the life span.

Maturity Models

Maturity models (Maslow, 1968; Rogers, 1961) subsume other developmental models and theories (e.g., moral reasoning, cognitive/intellectual

developmental) in trying to account for the myriad behaviors and attitudes that change over the life span. In this sense, maturity models attempt to accommodate the simultaneous interactions of thinking, value, relating, and feeling (Knefelkamp et al., 1978). Douglas Heath's model (1965, 1968, 1977) of the maturing person is based on a 30 year longitudinal study of Haverford College graduates. The model is made up of five interdependent dimensions:

> "As a person matures, he increases his capacity for symbolizing his personal experiences as well as aspects of his personal environment. Furthermore, he increasingly becomes more allocentric, capable of taking varied perspectives and viewpoints which he increasingly is able to integrate into meaningful hypotheses. Testing his ideas results in the stabilization of the more appropriate solutions which eventually become increasingly autonomous and so more generalizable to other situations." (Heath, 1977, p. 3)

These five dimensions take form in four areas of one's personality: cognitive skills, self-concept, values, and personal relations. Knefelkamp et al. (1978, p. 81) developed a matrix to codify qualities that make up the mature personality.

According to Heath (1968), the new friends and ideas encountered during college introduces instability to a student's preferred ways of thinking and behaving; novel experiences become a catalyst for personal development. As new information and experiences are integrated, a student adapts and his or her personality begins to again stabilize. The college experience is but one of many important transitions encountered in life to which an individual must adapt.

Compared with other theory clusters, maturity models are abstract and complex. Although they provide an overview of the changes that college students undergo, the general and all encompassing nature of the models make

them difficult to use in assessment or program development.

Typology Models

Patterns of socialization and cultural differences influence development and result in persistent patterns of behavior--such as cognitive style and temperament. Some theorists emphasize psychological dimensions (R. Heath, 1964); others offer sociological interpretations (Clark & Trow, 1966; Cross, 1971, 1976). Typologies are used to aggregate the consistent differences across persons in managing, delaying, progressing, or retreating from common developmental tasks, such as those posited by Chickering (1969). The typologies suggest that persons with certain characteristics will use preferred modes of coping with the challenges characteristic of the college experience.

A popular psychological typology is that of Myers-Briggs (Myers & McCaulley, 1985) and can be used to understand how individuals, or groups of students, organize and communicate their thoughts. The typology includes four dimensions. The first dimension, introversion and extraversion, indicates if a student prefers spending time and energy interacting with people or prefers to think through actions and ideas alone. The sensing-intuition category describes two general patterns of processing information. People who are most comfortable with the sensing mode prefer concrete information. Intuitive types take in information and formulate ideas and coping strategies rather than relying on the ways things have been done before. The two other Myers-Briggs categories are thinking-feeling and perceiving-judging. This typology suggests a preference for learning and integrating experience; no individual uses their preferred style in every situation.

Kolb's (1976, 1981) typology describes preferred learning styles of students, both in and out of the classroom, and includes four categories:

convergers, divergers, assimilators and accommodators. Convergers are comfortable with abstract conceptual and active experimentation; they prefer practical applications of ideas, exhibit relatively little affect, and usually have fairly specific interests. The diverger is most comfortable with concrete experience and reflective observation, often has a very vivid imagination, and is able to view concrete situations from a variety of perspectives. The assimilator learns most effectively through abstract conceptualization and reflective observation and excels in working with theoretical models and inductive reasoning. The accommodator learns best in a setting that allows for concrete experience and active experimentation; they prefer doing to thinking. Accommodators rely heavily on information from other people rather than theories, are very adaptable, and solve problems intuitively.

Typology models suggest that faculty and student affairs professionals should invite students to participate in academic and co-curricular activities in which they will feel comfortable and confident and will allow them to use their preferred mode of behaving (Provost & Anchors, 1987). After students have become integrated in the social and academic subsystems of the college, personal development can be encouraged by introducing students to tasks that require them to use modes of perceiving and learning that are different from their preferred style.

Person-Environment Interaction Models

To understand an individual's behavior, one must understand the environmental context or situation within which behavior occurs (Lewin, 1936; Walsh, 1975). This view is consistent with cultural perspectives on colleges and universities which emphasize the importance of socially constructed, context-specific meanings (Kuh & Whitt, 1988). In general, person-environment models emphasize the degree of congruence between students' characteristics

(background, ability, attitudes) and what the institution (environment) expects of students. Although these models do not describe the processes or outcomes of personal development, they offer explanations for why some students may find certain institutional environments compatible and others less appealing--perhaps even debilitating.

Walsh (1975) reviewed six theoretical perspectives on person/environment interaction: behavior setting theory (Barker, 1968), subcultures (Clark & Trow, 1966), personality types (Holland, 1973), need-press theory (Stern, 1970), social climate dimensions (Moos, 1973, 1974, 1979), and the transactional approach (Pervin, 1968). Some of these perspectives rely on "objective", quantitative measures of the environment (e.g., Barker, 1968; Clark & Trow, 1966); some other approaches are more subjective or phenomenologically-oriented (Pervin, 1968). A model adapted from Moos and explicated in Conyne and Clack (1981) takes into account the relationships between environmental variables, student characteristics, and outcomes and can be used to integrate objective and phenomenologically-oriented theories. Examples of successful interventions based on the ecosystem model, an approach consistent with environmental theories, have been described in some detail (Huebner, 1979); illustrations range from an entire campus to a dean of students office.

Spiritual Development

Spiritual development was once a central purpose of higher education in the United States (Brubacher & Rudy, 1976). Except for denominational colleges, however, this is no longer the case. Assessments in this area often reflect confusion over what the term means, and uncertainty as to its role, particularly in state-supported institutions. One approach is to utilize available religious and spiritual attitudes scales such as the Religious Values scale from the Allport-Vernon-Lindsay Scale of Values (1960) or the

Religious Orientation Scale from the Omnibus Personality Inventory (Heist & Yonge, 1968). Scales related to the concept of integrity--the congruence between values and behavior--have also been used (Chickering, 1969). There are two problems with these types of scales. First, they are based on items that reflect dogmatism or non-authoritarianism, attitudes that are not synonymous with spiritual development. Second, the scales use forced-choice items, an approach which does not account for the circumstances and decision-making processes through which spiritual values are expressed.

Fowler's (1981) cognitive-structural stage theory of faith development depicts faith as the way in which a person structures meaning in relation to an ultimate environment. Thus, traditional religions as well as other orientations to a spiritual world can be accommodated. Assessment is usually done through semi-clinical interviews. Fowler's theory has been used to design disciplinary and values development programs (Dalton & Healy, 1984).

Most colleges and universities have an implicit philosophical framework which reflects the institution's history and culture and influences the degree to which spiritual development is acknowledged as an important outcome of college. In many state-supported colleges and universities, spiritual development is sometimes equated with other areas of personal development, such as aesthetics, moral reasoning, or belief in human progress (DeCoster, 1987). Institutions should clarify their position on the importance of spirituality before determining to assess development as a separate domain, or to rely on other measures to represent spiritual development.

Part III: Empirical Research on Personal Development During College

A large body of research is focused on personal development outcomes of college. The following summary draws heavily from Astin (1977), Bowen (1977), and Kuh (1985).

Attitudes

In general, college students become more liberal in their attitudes, more politically and socially sophisticated, and more competent in working with others (Astin, 1977; Feldman & Newcomb, 1969). Compared with persons who have not attended college, college graduates are less dogmatic and exhibit less prejudice toward persons who are different from themselves. Bowen (1977) described this constellation of behavior and attitude changes as "personal emancipation." While modest (Chickering, 1969) to significant gains during college (Kuh, 1976; Kauffmann & Kuh, 1985) on measures on altruism (i.e., concern for the welfare of others) have been reported, these findings probably overestimate actual changes in students' behavior (Bowen, 1977) and probably reflect trends in society. For example, the studies indicating students become more altruistic were conducted during periods of sweeping social reform in the 1930s and 1960s. Nevertheless, for students attending certain kinds of institutions--usually denominational liberal arts colleges--the development of a "social conscience" seems to occur.

In recent years, sex role attitudes of college students have converged. On the average, male students seem to move some distance from stereotypic views of the interests and attitudes of men; women move away from views stereotypical of females. Although not all studies have confirmed this trend (Astin, 1977), more recent studies of entering college students reflect less stereotypic sex role responses (Astin & Kent, 1983). Consistent with the feminist movement and more women working outside the home, both men and women have become more sensitive to the multiple roles (career, spouse, homemaker) likely to be played by either men or women in contemporary society (Hutt, 1983).

Values

Historically, higher education has attempted to foster humanitarian interests (Morrill, 1980) and a sense of moral and civic responsibility (Rokeach, 1972; Rudolph, 1956, 1962; Sloan, 1980). Although some of the earlier research was pessimistic about the influence of college attendance on these values (Jacob, 1957; Eddy, 1959), recent research is more optimistic (Feldman & Newcomb, 1969; Hyman & Wright, 1979). College graduates tend to be more involved in civic activities after college than those who have not gone to college. They are more likely to vote (Pace, 1979), be aware of and interested in political affairs (Hyman, Wright & Reed, 1975), volunteer for community service (Pace, 1974; Solmon, 1973); and are less likely to be involved in criminal behavior or incarcerated (Ehrlich, 1975).

Pascarella, Ethington and Smart (1988) found that college attendance had a significant, unique impact on the humanizing of values independent of the characteristics students bring to college. The single most important variable seemed to be participation in leadership activities during college. However, a sobering observation is that institutional size was negatively related to the humanizing of student values. Thus, as has so often been asserted, it is imperative that efforts be continued to reduce the psychological size of large colleges and universities. In Pace's (1974) words:

> "The attainment of a broad range of personal and social benefits, of liberal viewpoints on important social issues, and of subsequent involvement in the civic and artistic life of the community seems to be related to the extent to which the college experience itself provided a rich opportunity for personal and social relationships, involvement in campus activities, and in associations with the faculty" (p. 129).

Well-being and Happiness

Most college students exhibit desirable changes on measures of psychological well-being including self-assurance and self-sufficiency; they tend to become less anxious and neurotic (Witter, Okun, Stock & Harring, 1984). While some students do not become better adjusted during college, individual self-esteem does seem to increase (Astin, 1977; Astin & Kent, 1983; Feldman & Newcomb, 1969). In addition, most reports concerning general happiness give the edge to college educated populations (Gurin, Beroff & Feld, 1960; Withey, 1971). The college experience seems "to provide a range of resources from which the individual can build a sound psychological base" (Bowen, 1977, p. 118).

Religion and Spirituality

Fairly consistent increases on measures of religious liberalism associated with college attendance have been noted (Clark, Heist, McConnell, Trow & Yonge, 1972). This movement away from fundamentalistic views is accompanied by a decrease in interest and participation in formal religious practices (Hastings & Hoge, 1981). The decrease in religious participation does not necessarily indicate disinterest in metaphysical or spiritual matters. Rather, religious beliefs (usually those similar to the student's parents) are divested as an individual begins to identify and clarify core spiritual values. These values and beliefs are later reconstituted in a form and vernacular compatible with contemporary societal norms. In fact, college graduates attend church more often than college seniors and participate in religious activities in greater numbers than those who have not gone to college (Bowen, 1977). It seems safe to conclude that the college experience provides challenges to previously un-examined ways of thinking and behaving and provides opportunities to re-examine spiritual understandings and commitments.

Vocational Satisfaction and Attainment

Reports from employers suggest that personal development is, at the least, indirectly related to vocational and occupational success; that is, persons with a well-developed a sense of responsibility and efficacy tend to be more successful. Students' satisfaction with the extent to which their sense of vocational purpose was developed during college seems to be fostered by contact with faculty and professional staff with whom students have developed a personal relationship. Such relationships are more likely to be cultivated in certain kinds of institutions (e.g., smaller, residential colleges) or in settings in which students can recognize and feel comfortable with the "psychological boundaries" of their environment, such as cluster colleges within large institutions (Pascarella, 1980).

College graduates are less likely to be laid off than non-graduates, are paid more per hour, and work more hours in any given year (Melchiori & Nash, 1983). Also, college graduates tend to be more efficient consumers in that they select commodities such as food more judiciously, thus maximizing their incomes (Michael, 1975).

Summary

On the average, college attendance is associated with: social maturation, competence, and freedom from irrational prejudice; increases in appreciation for the aesthetic qualities of life, clarification of religious views, personal autonomy, and non-authoritarianism; and decreases in political naivete and dogmatism. Also, college students become more introspective and more aware of their own interests, values, and aspirations (Feldman & Newcomb, 1969; Gaff, 1973; Heath, 1968). In general, college graduates hold better jobs, make more money, are more efficient consumers, are more satisfied with their lives, and are more likely to render community service and exercise civic responsibilities than those who have not gone to college. The

crystallization of these diverse components of personality functioning into a sense of identity is one of the most important personal development outcomes of college (Chickering, 1969).

As with other categories of college outcomes, the literature on personal development reflects aggregated group effects. Not every college student exhibits gains on each of these measures. For most, however, the college experience leaves a "residue" (Bowen, 1977) which is manifested as "an openness to new information and ideas, a facility for meeting and dealing with a wide variety of persons, and a practical sense of competence and confidence which enables the college educated person to successfully cope with novel situations and problems" (Kuh, 1985, p. 8).

Part IV: The Undergraduate Experience

What constitutes a high quality undergraduate experience for college students? The answer is both simple and complex. At one level, traditional age students want to be happy, satisfied, act on impulse, seek immediate gratification, meet new people, and obtain a good job after graduation. Because of racism and bigotry, for many minority students, particularly Black students on predominately White campuses, survival in a hostile environment is the preordinate goal and radically alters the usual standards of quality against which the student experience might be compared. Parents and taxpayers expect college students to develop a meaningful philosophy of life, to work toward their potential, and to become responsible citizens and economically productive. These expectations are not mutually exclusive, of course. However, conflicts do arise when faculty and staff expect students to behave in ways that are counter to students' preferences at the time. This tension is always present (National Association of Student Personnel Administrators, 1987).

Until recently, most estimates of quality in higher education were based on indices such as institutional resources and student characteristics. For example, students' rank in high school class or scores on entrance examinations have been commonly used as indicators of quality (Astin, 1985; Kuh, 1981a). Perceived reputation and prestige shape public perceptions of which colleges provide high quality experiences for undergraduates. Such indicators are less relevant than some other factors, such as a clear institutional purpose (Kuh, 1981a).

Large institutions with multiple missions send mixed messages to students and faculty and tend to distort the sense of community considered important for a "developmentally powerful" experience (Chickering, 1971). They may, however, be able to compensate by prioritizing and clarifying the messages sent to students and others. Heath (1968) eloquently underscored the importance of a salient institutional purpose to quality:

> "A college community that has an ideal or vision has, in effect, expectations of what its members are to become. Such ideals or expectations...may be more silent than vocal; they may work their effects out of awareness; they may constitute the invisible college...and when such expectations are consistently expressed in all structures and activities of the institution, then different communal experiences may mutually reinforce one another. It is rare that a specific type of educational experience is very significant...rather, it is the coherence, the consistency, the "atmosphere"...that makes its impact on development (p. 243)."

The degree to which students are satisfied with their relationships with other students, faculty, and staff has been correlated with quality (Astin & Scherrei, 1980; Feldman & Newcomb, 1969; Pascarella, 1980). The amount of time that faculty spend teaching, advising, and informally

interacting with students is a surrogate measure of quality that has received consistent empirical support (Pascarella, 1980; Webster, 1980).

> "The interaction between the faculty and students formally and informally serves as the basis for the transmission of attitudes and values from the professional to the neophyte... The most successful socialization...is a product of a successful coaching relationship, a consensus among faculty of the goals to be achieved, and a perception of the legality or acceptance on the part of the student. Both formal and informal interaction contribute to these conditions" (Bragg, 1976, p. 26).

Wilson (1966) estimated that perhaps more than 70% of what a student learns during college results from out-of-class experiences. Students spend a larger proportion of waking hours out-of-class than in class, much of it with peers. "Once a person identifies himself with a group, that group becomes an anchor and a reference point. The values and behaviors approved by the group provide a background for developing individual attitudes and behaviors" (Chickering, 1974, p. 88). The peer group is obviously important, yet the influence of peers on personal development has received relatively little attention. Recent research (Pascarella, 1984, 1985) suggests that interaction with peers directly influences aspects of personal development; the quality of peer relationships also is related to persistence and self-reported gains on intellectual and personal development (Bean, 1985; Pascarella, Duby, Terenzini & Iverson, 1983).

The underrepresentation of minority faculty and staff makes it difficult, if not impossible, for Black students and many other minority students to identify role models and mentors with whom they might identify (Astin, 1982; Fleming, 1984). The absence of such persons exacerbates feelings of isolation and alienation. The ratio of Black to White students is typically

low; in many institutions special support services are limited. As with other students, making friends and perceiving that the environment is friendly and supportive is very important for Black students, not only for social adjustment, but for academic success as well. Minority students routinely experience role conflict when trying to meet the expectations of the university, their families, and their peers. Their educational aspirations are often dashed by the chilling, sometimes hostile, campus social climate (McHugh, Dalton, Henley & Buckner, 1988); as a result, minority students are less likely to take initiative in seeking out personal development opportunities.

The differences in personal development outcomes exhibited by resident and commuting students (Astin, 1977; Chickering, 1974; Pascarella, 1985) can be attributed to the relatively few number of opportunities commuting students have for peer interaction. However, spending lots of time with certain groups of peers may be debilitating. For example, students who spend time with friends whose orientation to learning is incompatible with the academic purposes of the institution may reinforce inappropriate behaviors. The peer group, rather than challenging old attitudes and behaviors, may allow a student to rely on comfortable, anti-intellectual behavior patterns. In this case, peer groups made up of pre-college acquaintances or new friends who resist adapting to challenges inherent in the college environment may present obstacles to students' academic and social integration into the college community, a situation that often leads to dissatisfaction, poor academic performance, and departure from the institution (Tinto, 1988). Community colleges and other institutions with large numbers of part-time, commuter, and minority students face significant challenges and must provide special programs and services to help students connect with faculty and peers.

Part V: Satisfaction

The degree to which students are satisfied with their college experience is a key variable in studies of attrition, retention, student-institution fit, and program evaluation. Since satisfaction has been empirically related to persistence and achievement (Astin, 1977; Bean & Bradley, 1986; Pascarella, 1980; Tinto, 1975), determining how to cultivate satisfied students is understandably important.

Institutional characteristics, such as number of students, religious affiliation, geographical diversity of students, selectivity and residential status, are related to satisfaction (Astin, 1977). For example, as a group, students at small, residential, church-related institutions are often more satisfied than students attending large state-supported universities (Astin, 1977). Students at selective, prestigious colleges also report relatively high levels of satisfaction. To a considerable degree, student-environmental fit is a product of the ability of the institution to attract students that will be successful and satisfied.

Academic integration, the degree to which a student is interested, motivated, and confident concerning his or her academic program, has also been related to satisfaction (Tinto, 1988). Students who believe they are in academic difficulty and perceive the academic program to be too difficult or too competitive are less likely to get good grades; thus, they may be less satisfied with their college experience. Many believe that higher grades lead to increased satisfaction. However, there is some evidence to suggest that satisfaction--rather than being a product of good grades--may actually be a precursor or lead to good grades (Bean & Bradley, 1986).

Students who report higher levels of interaction with faculty report more satisfaction with college, evidence higher degrees of achievement as reflected by standardized tests, are less likely to drop out, and are more

likely to seek advanced degrees (Astin, 1977; Bean & Kuh, 1984; Centra & Rock, 1971; Endo & Harpel, 1982; Feldman & Newcomb, 1969; Kuh, 1981a; Pascarella, 1980; Pascarella & Terenzini, 1977, 1978, 1979, 1980; Wilson, Gaff, Dienst, Wood & Bavry, 1975). Satisfaction and achievement are influenced by student interactions with faculty that go beyond formal course syllabi and class assignments. Feedback from institutional agents "influences the student's self-image as a learner and a human being" (Bragg, 1976, pp. 34-35). Of course, a faculty member or advisor cannot make students learn, think more analytically, or become more mature and independent. That students must take advantage of institutional resources to maximize the benefits of attending college is a theme that has run through the literature for many years, a point to which we will return shortly.

The frequency of contact with faculty is not as important as the quality and strength of the relationships with faculty (Pascarella, 1980; Volkwein, King & Terenzini, 1986). In addition, the number of professors with whom the student is acquainted (Schmidt & Sedlacek, 1972) and the degree to which a student is comfortable with his or her major (Nafziger, Holland & Gottfredson, 1975) are also related to satisfaction.

Both social integration, which is a function of the number of formal and informal groups to which a student belongs, and the sense of confidence one has in his or her social life (Betz, Klingensmith & Menne, 1970), are also related to satisfaction. Group membership is positively related to personal development and academic achievement (Bean & Creswell, 1980; Hartnett, 1965). However, a high level of participation in social activities, while positively influencing satisfaction, may have a negative influence on academic performance (Spady, 1970; Whitla, 1981).

The relationship between social integration and interaction with peers and faculty underscores the need for programs and policies that maximize

opportunities for students to encounter these important socialization agents. This is easier to accomplish for students who live on campus rather than those who commute to college. For example, Kuh, Schuh and Thomas (1985) described principles for involving faculty in residence halls.

It is clear that student satisfaction is important to a high quality undergraduate experience. One caveat. Satisfaction should be distinguished from complacency. Complacency is a by-product of having one's wants satisfied in the absence of meaningful challenges to comfortable ways of thinking and behaving, the very kinds of experiences that promote personal development. When estimating student satisfaction with various aspects of the college experience, assessors should distinguish among what students say they "want" (Kuh, 1981b, 1982) and two matters we take up next, the degree to which students take advantage of institutional resources, and the presence of conditions that seem to encourage personal development.

Part VI: Involvement

The involvement principle is made up of two elements: (a) an investment of psychological energy or commitment to an activity or project, and (b) the time devoted to an activity (Astin, 1984). Kuh and Wallman (1986) compared college to a fitness center:

> "Membership in a fitness center does not guarantee physical or psychological well-being. Unless an individual uses the facility to exercise regularly, physical fitness benefits will not accrue. Similarly, the benefits to be derived from attending college vary depending on the degree to which students take advantage of the institution's resources" (p. 64).

The involvement principle is further explicated through five basic postulates (Astin, 1984, 1985):

1. Involvement is the investment of psychological and physical energy in some kind of activity, whether it is specific (e.g., organizing a blood drive or being a member of a vocal ensemble) or highly general (e.g., attending a concert, occasionally using the campus recreation facilities);

2. Different students will invest varying amounts of energy in different activities. That is, some students hold an elected office in student government and are significantly involved, other students may be satisfied to attend a few meetings of the residence hall governing body;

3. Involvement has quantitative and qualitative features. Measures of involvement could include something as simple as the number of clubs to which one belongs or the number of times a student has used the library. Interviews are more appropriate for determining the degree to which a student is committed, feels a certain activity is important, or associates feelings of well-being and satisfaction with an activity;

4. The benefits to be derived from involvement are a function of the quality and quantity of effort students expend. For example, outlining required readings or interpreting major points to another student requires more effort and is a more powerful learning experience than merely underlining passages in a textbook. It is not surprising that the greater the amount of intellectual effort put into studying, the higher the grades (Pace, 1980). Thus, the "time on task" principle is a necessary, but not sufficient, condition for encouraging personal development. "What counts most is not who they are or where they are but what they do" (Pace, 1984b, p. 1);

5. The effectiveness of any educational policy or practice is related to the extent to which it encourages students to take initiative and become actively engaged in the activity (Astin, 1985).

Benefits of Involvement

A student's initial commitment to college is associated with the degree of participation in high school activities and the anticipated level of involvement in college activities (Wilder & Kellams, 1987). Student involvement is also associated with: size of the institution and living units, general satisfaction with college including the living environment and academic major (Keegan, 1978), community service after graduation, and post college income (Pace, 1979); lack of involvement is related to higher attrition rates (Astin, 1977; Terenzini & Pascarella, 1978).

Students who are involved in various aspects of the collegiate experience clearly benefit more in terms of social and intellectual development (Astin, 1977, 1979; Astin & Scherrei, 1980; Pace, 1980, 1987). Students in the humanities report devoting more effort to personal and social activities and benefiting more; engineering, business, and physical science majors expend less effort in personal and social activities and benefit less (Pace, 1984a, 1986). In general, "student quality of effort in scholarly/intellectual activities and informal interpersonal activities are positively related to reported gains in intellectual skills and personal/social development" (Ory & Braskamp, 1988, p. 117). As Pace (1987) put it, "good things go together" (p. 1); that is, those who benefit the most intellectually also seem to benefit more in the personal development domain as well. Seniors typically demonstrate greater gains than do freshman based upon their level of involvement.

Co-curricular Activities

The great majority of students (80%) participate in one or more of seven kinds of activities: cultural, social, political, communication, religious, academic, athletic. About a third are involved in three or more of these kinds of activities (Kapp, 1979). The relationship between involvement in

co-curricular activities and personal growth is curvilinear. Students who are over committed (i.e., spend the majority of their time in such activities) or are not involved at all benefit less than students who are involved at moderate levels (Whitla, 1981).

1. Participating in pre-college orientation activities positively influences both social integration and institutional commitment and thus has indirect effects on satisfaction and persistence (Pascarella, Terenzini & Wolfle, 1986). Pascarella et al. (1986) hypothesized that an on-going orientation program, perhaps one that continues throughout one or both semesters of the freshman year, could conceivably have a stronger influence on integration into the campus academic and social subsystems and subsequent participation in class-related and out-of-class activities.

2. Students who participate in co-curricular activities are more positive about their college experience, are more satisfied with social life and contacts with faculty, are more likely to graduate (Astin, 1977; Kapp, 1979; Pascarella, 1980), and more likely to report development of specific skills such as teamwork, decision making, and planning (Schuh & Laverty, 1983).

3. The only factor predictive of adult success is participation in co-curricular activities (Munday, Davis & Wallach cited in Power-Ross, 1980).

4. Involved students are more likely to attribute some of their job success to participation in co-curricular activities (Kapp, 1979). "Extra-curricular activities and leadership responsibilities are good indicators of managerial performance... Since every college experience is similar in terms of the many skills needed in organizations, a well rounded curriculum and campus life is the most appropriate preparation for future executives and leaders" (AT&T, 1984, p. 34).

5. The ability of students to establish the capacity for mature, intimate interpersonal relationships is positively related to participation in campus organizations and recreational activities (Hood, 1984).

6. Men and women who have held leadership positions in college benefit in similar ways (e.g., self-esteem) (Astin & Kent, 1983; Schuh & Laverty, 1983).

7. After college, involved students are more likely to vote, to participate in community activities (Kapp, 1979), and to provide financial support to their alma mater (Nelson, 1984).

Institutional Conditions That Promote Involvement

Purpose. An institution's purpose may follow from a particular religious, ideological, or philosophical belief. Without a clear, coherent purpose "there cannot be clear criteria as to whether the outcomes of a program are good in the ways intended. Given an agreement on purpose, there may still be disagreement as to the best ways to pursue it, but at least the merits of the methods can be argued the light of objectives that are supposed to be served" (Keeton, 1974, p. 1). A salient institutional purpose provides direction for students, faculty, and staff. Also, the extent to which students' learning and personal development goals are in tacit agreement with the institutions' purpose is related to student persistence, and more important, continuity. This tacit agreement is often manifested by students as "general satisfaction" with the institution.

Size. While probably not a direct function of size, involvement seems to be mediated by the number of students vying for opportunities to participate. In a review of the research and opinion relating size and student outcomes, Bowen (1977) concluded that "smallness is associated with educational advantage" (p. 248). Of course, if a college is too small, the kinds of experiences that encourage personal development may be limited

(Meeth, 1974; Millet, 1979). Nevertheless, smallness of size seems to mediate a sense of purpose, commitment to the institution, the number of activities in which a student can participate, and various forms of recognition for being involved.

The most critical issue related to size may not be numerical, however; more important to encouraging involvement may be the "experience of belongingness" (Heath, 1968, p. 241), the degree to which students feel they "fit" in the institution and are integral members of the community. According to Astin (1977), the policy decision in American higher education most difficult to defend was to permit--even encourage--colleges and universities to become so large that students became anonymous. Universities can create smaller living-learning or special interest units to ameliorate the feeling of a large, impersonal, bureaucratic institution and to multiply the number of opportunities for personal development. For institutional agents, the challenge is clear: the redundancy in personal development opportunities usually associated with large campuses must be reduced (Chickering, 1969; Kuh, 1981a) and implementing innovative ways of encouraging interaction in small groups of staff, students, and faculty must become a priority.

Continuity. The longer a student stays in college the influence of background becomes less, and the influence of college experiences on learning and personal development becomes greater (Astin, 1977). Students associated with an institution for only an abbreviated period of time are less likely to benefit from the opportunities that accrue through long term relationships. The sense of security needed for many students to take risks and the support offered by peers with whom interpersonal intimacy has been achieved require both an individual developmentally ready to deal with such tasks and an environment in which intimacy can be fostered. In this sense,

involvement is mediated by continuity of institutional agents who work with students. Continuity is also a bridge to generativity.

Generativity. Knefelkamp (1980) and others (e.g., Newman, 1852) suggested that a generative learning community is characterized by supportive persons mixing freely with each other in active pursuit of shared ideals, principles, and values. Generative faculty and student affairs staff willingly share the meaning of their experiences with students and are committed to insuring that the next generation of students will benefit from what has been learned and endured in the collegiate setting. This suggests that faculty and student affairs can encourage personal development by offering unconditional caring and support to students and colleagues. Generative faculty and student affairs professionals maintain links with the past through communicating with former students and caring for those currently enrolled. One example. A Wichita State University faculty member invites every student in his class to lunch; after completing the class and graduating, students have a standing invitation to dinner once a year with the faculty member and his wife at their home. Such gestures on the part of faculty and staff indicate to current and former students the importance of being connected, of maintaining a relationship over time. In Appendix B, a generativity checklist is presented which can be used as a tool to structure discussions for faculty and staff development activities.

Opportunities for Personal Development Through Involvement

Personal development is encouraged through social, educational, cultural and recreational programs, leadership opportunities, internships, voluntarism, employment (particularly on campus), participation in formal organizations, and interaction with faculty, staff and peers. Living on campus has significant, positive, direct effects on student interaction with peers and faculty, behaviors that are positively associated with interpersonal

self-image (Pascarella, 1985). Students who live on campus have more opportunities to interact with peers and faculty and become involved in academic and out-of-class activities. Institutions with many thousands of undergraduates obviously cannot require all students to live on campus.

The following factors, distilled from our review of the literature, are related to personal development and should be considered when establishing and evaluating policies and programs to promote personal development.

1. Opportunities to take part in novel activities that require personal decisions (e.g., how to spend one's time, who to spend time with) and exposure to diverse of opinions, life styles, and beliefs;

2. Opportunities to take responsibility for academic growth, and recreational time (includes use of out-of-class time related to the academic program, career/life planning, etc.);

3. Opportunities to learn how others feel, particularly those persons whose backgrounds and perspectives differ from one's own;

4. Opportunities to interact with persons who exhibit more advanced patterns of thinking and reasoning or whose physical, social, or emotional maturation is not at the same level as one's own, such as upperclass students, faculty, and student affairs professionals;

5. Participation in activities that require substantive thinking and discussion about political, moral, or personal issues that go beyond exchanges of opinion (although such exchanges can also be important for developing confidence).

Opportunities for Special Populations

Adult learners (Weathersby & Tarule, 1980), students who must work off-campus, and many minority students are disadvantaged when it comes to personal development opportunities (Shriberg, 1980). Academic and student affairs administrators must develop compensatory programs and activities in

an effort to bring part-time and commuter students into more frequent contact with peers and faculty (Pascarella, 1985; Stewart, 1983). Consider the following examples:

For Adult Learners:

(a) Arrange childcare for all campus events (e.g., orientation), especially activities at times when children are not in "regular" childcare (nights and weekends);

(b) Encourage families to attend events by sending special invitations and offering reduced rates to spouses and children of students;

(c) Establish a task force to advise decision makers on policies and services (i.e., advising hours, financial aid policies, office hours, registration procedures) that facilitate access for non-traditional students;

(d) Create programs (one time and on-going) that meet special needs of older students (e.g., single parent support groups, budgeting for college with a family, balancing academic demands with a job).

For Commuters and Part-time Students:

(a) Establish a communications center and provide a campus mailbox for commuters;

(b) Increase home mailings to commuters about campus activities;

(c) Provide a space on campus (other than the library or a campus dining facility) where commuter students can relax and talk informally with faculty and peers. The space should be arranged to encourage social interaction (e.g., lounge furniture);

(d) Provide easy access to campus events (e.g., if there is an all-campus picnic and resident students eat free because of their meal ticket, provide commuters with a free or greatly reduced meal ticket and parking costs)

(e) Include representatives of special populations on all student government/faculty/staff committees/task forces. Be sensitive to commuters and students with family commitments (e.g., if dinner meetings are scheduled, provide free meal tickets for those that do not have tickets; try not to schedule too many meetings that take a student away from his/her family at meal time);

(f) Provide peer counselors or student advisors for commuters/minority/adult students--a resource person who is also a student can provide the kind of information and support that a faculty member or student affairs professional cannot.

For Minority Students:

(a) Develop orientation workshops for new minority students hosted by currently enrolled students and faculty;

(b) Establish a monthly Black Caucus so that students can meet regularly to discuss concerns and maintain contact;

(c) Recruit and train minority students to serve on all major campus governance committees, student government, and cultural and social programming boards;

(d) Establish a cultural awareness week around themes of unity and diversity, and observe special holidays and celebrations such as Black Heritage Month, Cinco de Mayo, and Martin Luther King, Jr.'s birthday;

(e) Actively recruit minority students to work on the student newspaper;

(f) Recognize minority students for their service and academic achievements (McHugh et al., 1988).

In some ways, the challenges associated with encouraging participation are similar to those related to motivation (Graham, 1988). By attending to the other conditions that support learning and personal development, a synergy may result from students and institutional agents interacting in ways that

foster student interest and a feeling of "belongingness." The goal is to create environments or situations where all students have opportunities to participate in ways that contribute something to as well as take something from an experience. For example:

(a) Student escort service to the library or to evening classes;

(b) Peer counseling and tutoring programs run by upperclassman for new students and special populations such as minority and adult students;

(c) Union or student activities program boards where students actually plan and carry out the events, rather than having the staff implement them (e.g., negotiate with a performing group and check the contract with the college/university lawyer, set up student security marshals for the concert/event);

(d) Residence hall theme (e.g., scholarship, language) houses with student coordinators;

(e) Student officials for intramural events;

(f) Student tour guides for prospective students;

(g) Student speakers for admissions/alumni days;

(h) Leading prayer or guided readings at campus ministry-sponsored events;

(i) Development of a musical score for an admissions or alumni video.

No one of the institutional conditions or opportunities described above is sufficient to insure involvement on the part of students. Faculty and staff cannot make a student participate in various academic and out-of-class activites. However, strong leaders and role models (faculty, staff and influential peers) can encourage--even challenge--students to greater investments of individual effort. A high level of participation on the part of a large number of students is more likely to occur when role models value

and legitimate involvement in out-of-class activities that complement the academic purposes of the institution.

Part VII: Observable/Measurable Indices of Personal Development

The literature on personal development and the college experience is impressive. Most college students become more self-sufficient and comfortable with others through the natural course of events (e.g., leaving home, interacting with people different from one's self, adjusting to a different culture, returning to school after child-rearing). Comparing the behavior of both traditional age and older students during fall orientation with their behavior a few weeks later in the semester suggests that many students gain confidence, become more independent, and increase their ability to deal with novel circustances. Drawing conclusions from published research, anecdotes, and casual observations is relatively easy compared with carefully documenting various aspects of the personal development of students on a particular campus. In Figure 1, we provide some examples of behaviors that may be evidence of personal development. The suggestions are illustrative and are offered to encourage brainstorming about campus specific applications. Many of the ideas are drawn from Erwin, Menard and Scott (1988), Julian (undated mimeo--Appendix D), Eickhoff (1987), and Manning (personal communication, August 30, 1988).

Another approach to documenting personal development is to review institutional records that describe students who have encountered difficulty in negotiating challenges, (such as students who lack direction or are unsure about their future, who make repeat visits to the counseling center without a successful resolution to their problems or receive appropriate referrals to other campus agencies, or who habitually violate standards of conduct and make repeat appearances before the judicial hearing board. Of course, virtually every student encounters one or more emotional upheals during four

Figure 1

Evidence of Personal Growth

Behavior	Evidence
Improved decision making	Service on campus judicial boards and other committees;
Taking initiative	The number of students who use career services before the final semester of their senior year, successfully organize academic or extra-curricular events, and make use of institutional resources on their own;
Present persuasive arguments	The number of students who lobby for changes in institutional policies to eliminate obstacles to services (e.g., bus service, parking, access to organizations and clubs);
Adapt to new situations	The number of students who make and keep new friends and take part in activities different from one's previous experience (e.g., White students who participate in events sponsored by the Black student organization, students who attend the symphony for the first time);
Capacity to cope with problems	The number of students who handle day-to-day crises in an appropriate manner (e.g., managing one's own affairs rather than a faculty member, student affairs professional or parent interceding);
Openness to new ideas	The number of students who participate in events such as a Sater dinner, a gay lifestyles pr[illegible]m, or a yoga clinic;
Cultural awareness and sensitivity	The number of students who confront negative racial attitudes and who demonstrate curiosity about other cultures through participation in study abroad programs, Japanese tea ceremonies, and day trips to urban areas by students from rural areas and vice-versa;

Figure 1 continued

Behavior	Evidence
Strong self-concept	The number of students who wear appropriate attire for various events, who are goal-directed, who exhibit confidence in their ability to "manage" and direct their social and academic life, who seek guidance when needed, and who ignore peer pressure and stand up for what they believe;
Interpersonal skills	The number of students who establish relationships with others similar to or different from themselves demonstrated by a deepening of relationships with roommates or friends, who interact with persons of different status such as faculty or graduate students or professional staff, and who have an expanding network of friendships;
Responsiblity	The number of students who meet announced deadlines (e.g., sign up for residence halls spaces or register classes), who contribute to a cohesive, accepting community through demonstrating respect for college and personal property (one's own or roommate, friends), and who demonstrate respect for others;
Concern for others	The number of students who participate in volunteer activities on and off the campus.

or more years of college. Assessment teams may find that focusing on students whose behavior is on the fringes of what is considered normal functioning may reveal debilitating institutional policies or practices.

Erwin, Menard and Scott (1988) compiled a list of personal development outcomes likely to be associated with institutional programs and activities, such as those sponsored by the student affairs division, union, and other campus offices (Appendix C). Because the institution for which this taxonomy was developed is a residential campus serving primarily traditional age students, the role of various offices will have to be modified for use at other types of institutions. Julian (undated mimeo--Appendix D) and Klepper (1981) also developed lists of student behaviors worthy of consideration. Their ideas also will have to be modified to reflect the unique aspects of one's own campus and students.

Part VIII: Implications For Assessment Teams

To be useful, assessments of personal development must go beyond collecting information about personal growth or student satisfaction. The assessment activity must, at some point, influence institutional policies and practices. For this to happen, administrators, trustees, faculty, students, and others must find the information useful for policy decisions and planning (Banta, 1988; Ewell, 1985). In this section we offer some suggestions for campus assessment teams. Excellent sources of advice in this regard are Adelman (1988), Halpern (1987), and Jacobi, Astin and Ayala (1987). Bray and Belcher (1987) offer suggestions specific to the community college setting.

According to Jacobi et al. (1988), successful assessment efforts have the following characteristics:

(a) researchers, practitioners, and students collaborate in the process;

(b) administrative support for assessment is evidenced by providing release time and resources for faculty and staff to conceptualize and implement assessment strategies;

(c) assessment strategies are technically adequate;

(d) information is widely disseminated to all relevant constituencies after the data are collected and analyzed;

(e) assessment team members, faculty, staff, and students discuss and interpret the findings;

(f) recommendations resulting from the assessments are understandable and flow directly from the data; and

(g) a structure is developed wherein decision makers, researchers, faculty, staff, and students can discuss the implications for policy and programs.

Jacobi et al. (1988) also provide a list of practical suggestions for conducting assessments and discuss reasons why assessments often fall short of their potential.

Guiding Principles for Assessing Personal Development

Taken together the eight principles which follow can be used as a framework to guide the work of campus teams charged with assessing personal development and monitoring the quality of student life. Of course, context-specific circumstances will require adaptations of one or more of these principles. In general, however, these ideas should be helpful in deciding how to proceed.

1. Assessment should explicitly address the institutional mission and the personal expectations and aspirations of students.

As we mentioned earlier, quality is context-bound, and is primarily a function of institutional purpose (Ewell, 1984; Keeton, 1971; Kuh, 198[illegible]. The degree to which personal development occurs during the college years is

shaped in part by students' expectations and the emphasis the institution places on personal development. Thus, a guiding question is, "What are we trying to accomplish here together?" Given the diversity of students and institutional goals, multiple answers to this question should be anticipated and carefully anlayzed. To balance the competing and, at times, conflictual expectations of faculty, staff and society, the conditions required for personal development, and the wants of students, some members of an assessment team must be skilled in negotiation and group problem solving.

2. Institutional values are communicated clearly and consistently through all phases of the assessment process.

What assessors emphasize and how assessments are conducted must be tied to local values. To be useful for purposes of policy formulation and environmental redesign, standardized instruments and other assessment devices and strategies must be compatible with the institution's cultur Pluralistic value orientations of students, faculty, student affairs professionals, and others will make it difficult to achieve consensus on the most important personal development goals.

"What is important as far as personal development is concerned to the people in this institution?" The smaller the institution and the number of students involved, and the more homogeneous the student body, the easier it will be to respond and share understandings of these value laden issues and concerns. At large institutions, the assessment task is obviously more complicated. Collaboration and negotiation with students, faculty, and administrators will be important. But to assume that the measurement and interpretation of personal growth are not tied to values is to be oblivious to the diversity and complexity of the New Jersey higher education system.

3. **Assessment activities are public, collaborative, and educative.**

The assessment of personal development will generate more useful information when the requirements and perspectives of various groups are publicly legimated. Collaboration between students representing ethic and racial groups and faculty, academic, and student affairs professionals is necessary to adequately describe and understand the degree to which personal development takes place and how to best describe and measure it. In this instance, the guiding question is, "How can various constituent groups be encouraged to participate and benefit from personal development assessment activities?"

Direct participation in the assessment activity will enable students and others to learn more about each other and reflect on the meaning of their experiences individually and collectively. Access to the process can also maintain enthusiasm for and a commitment to cooperate in data collection and to act on information resulting from assessments. Assessments will have greater credibility if during and after the process, students know more about their development than they did before the assessment began. Thus, students should be informed periodically about assessment procedures, the findings, and the potential consequences of whatever policy and program decisions are made.

The information collected through assessments of personal development may be of interest to other constituent groups. One example will illustrate. Prospective students are interested in the degree to which currently enrolled students are satisfied and how often they see faculty out of class (Kuh, Coomes & Lundquist, 1984). Parents are sometimes more interested than students in the degree to which interpersonal skills are acquired and values are examined (Litten & Brodigan, 1982). Admissions staff can use information about personal development outcomes to prepare prospective students and parents for the challenges of college. In this way, assessment data can

influence the behavior and expectations of students before they reach the campus. Sharing this information with parents encourages them to think about the college years as a developmentally powerful period in their child's life, not only a route to a decent job and a desirable life style after graduation (Kuh & Wallman, 1986).

4. Assessment must take into account student-institution fit.

Outcomes are shaped by the interactions between students and various aspects of the institution's environment. When determining the match between student characteristics and institutional characteristics, three sets of variables must be considered: (a) characteristics of students, (b) characteristics of the institutional environment, and (c) the effects or outcomes resulting from the interaction of students with the campus environment and institutional agents. Student characteristics of interest include goals, abilities, needs, interests, values, and expectations. Institutional characteristics include a broad array of variables that can be placed in four domains: (a) academic-intellectual, (b) physical, (c) social-cultural, and (d) psychological. Of course, these domains are not discrete; considerable overlap exists.

> "For example, the lighting of campus buildings and walkways is obviously a part of the physical environment; however, the absence of adequate lighting could also affect the psychological, academic, and social environments because poor lighting would create in students a fear for their personal safety, which, in turn, could reduce student evening use of a library, reduce night class enrollments, or reduce participation in evening social events" (Williams, 1986, p. 39)

To estimate the fit between student and campus environments, matches and mismatches must be recorded (Huebner, 1979). Categories of student

reported mismatches with the environment include: (a) incongruence between students' prior expectations about campus life and what they actually experience on the campus, (b) inadequate opportunities to develop close friendships with peers of similar interests, (c) a disjunct between student academic abilities and faculty expectations for their work, (d) the apparent inability of the institution to meet students' career-related, recreational and other general support needs, and (e) lack of adequate financial resources Some mismatches are reflected by academic, social, and other student adjustment problems. Student perceptions are also another rich source of data, particularly information from students who leave the institution before graduation.

While "autopsy" studies focused on students who have departed (Terenzini, 1982) can be helpful, it is also necessary to collect information from satisfied, successful students. Thus an assessment team should periodically survey and interview student leaders, active members of various organizations, and other students, particularly those close to graduation. Alumni also may be rich sources of information.

After collecting the data, the assessment team must evaluate the matches and mismatches between students and various aspects of the campus environment. Not all mismatches can or should be corrected. Some mismatches are beyond the control of the institution (e.g., alcohol policies dictated by state law); others may be compatible with institutional goals for personal development (e.g., students are expected to handle their own problems rather than having a faculty or staff member intervene).

Another way of conceiving the satisfaction-institution fit question is akin to a cost benefit analysis. Students will remain in school as long as the perceived benefits outweigh the perceived costs, both psychological and monetary. When the balance shifts in favor of perceived costs, a student

may leave. Assessors must be sensitive to those mismatches which increase the costs of staying in school (e.g., campus offices are closed after 4:00 P.M. which makes them virtually inaccessible to adult learners and others who have full-time jobs during the day).

The final step in examining student-institution fit is determining appropriate responses to mismatches. "The traditional approach...in reacting to apparent mismatches...has been to immediately assume that something is wrong with the student, since he or she has not been able to affectively adjust to the demands of the collegiate environment" (Williams, 1986, p. 43). In this sense, students are seen as deficient (Banning & McKinley, 1980). A direct intervention on behalf of one or a group of students may be appropriate. It is also possible that certain aspects of the campus environment require attention. Members of campus assessment teams are encouraged to review one or more of the following to obtain a better grasp of the ecological perspective on college environments: Banning, 1978; Banning & Kaiser, 1974; Huebner, 1979).

5. Assessment results should include estimates of the effort students put forth in academic and out-of-class activities.

Easily quantifiable information, such as the number of students participating in various activities, is relatively easy to assemble. For example, Winston and Massaro (1987) developed an inventory to assess extra-curricular involvement. However, information about participation is empty without an indication of student effort. Thus, in addition to the question, "What do students do here (activity), an assessor must also ask: "How much effort do students expend in these activities?" Another question is even more important: "What happens to students as a result of participating in these activities?" To adequately respond to the latter question, some assessment

efforts must extend beyond the campus and into the post-college years (Pace, 1979).

6. Assessment should describe how out-of-class activities contribute to the purposes of the academic program.

Many aspects of personal development are associated with participation in co-curricular activities. Yet, for some students, out-of-class life becomes more important than the attainment of their academic goals. Some effort should be made to determine that co-curricular programs complement, and do not compete with, the academic purposes of the institution. While out-of-class activities are important, the academic mission of the institution must be pre-eminent (National Association of Student Personnel Adminstrators, 1987). Thus, assessments of personal development cannot focus exclusively on the out-of-class experiences of students; rather, assessments must consider the contributions of both the academic program and out-of-class life to personal development and a high quality undergraduate experience.

7. Multiple forms of data gathering are used.

"What methods and strategies will tell us what we need to know about students' personal development during the college years?" Without using multiple methods to collect information, the wide variety of personal development outcomes will not be adequately recorded.

The phenomenological interview seeks detailed "description and understanding of the meaning of themes and the life-world of the interviewee" (Kvale, 1983, p. 174). The basic premise of this approach is that meaning is more accessible when an individual student is given an opportunity to reflect on his or her experiences. Thus, an assessor would encourage students to reconstruct and reflect on the meaning they make of their experiences. Antanasi and Nora (1987) described the phenomenological interview in some detail. Suffice it to say that while such approaches result in very rich

data, the data collection and analysis are complex and labor intensive. The companion paper by Hanson will elaborate on these and related methodological issues. In Appendices E and F, different approaches for collecting personal development information are summarized.

8. Assessment should be action-oriented and provide information for policy formulation and decision making.

Assessments of personal development should inform and hopefully guide the implementation of interventions designed to encourage personal development. "What actions do our experiences collecting and analyzing the information suggest about encouraging further personal development on the part of students?" Assessments must be both descriptive and evaluative. In general, single institution studies are preferred because assessors and those in a position to take action based on the assessment data (faculty, administrators, and students) will be more committed to modifying policies and practices. Also, assessment programs with an intrainstitutional focus can proceed without fear of jeopardizing funding before policies and practices can be evaluated (e.g., reduction of the number of student affairs professionals if data suggest lower levels of personal development compared with other institutions).

A Final Word

It is possible to estimate the degree to which personal development occurs during the college years. However, such assessments are complex and require "muddling through" and a high degree of collaboration on the part of faculty, academic administrators, student affairs professionals, and students. The challenges to assessing personal development and monitoring the quality of the student experience are nicely summarized in the words of Ralph Waldo Emerson:

"How do you measure success? To laugh often and much; to win the respect of intelligent people and the affection of children; to earn the appreciation of honest critics and endure the betrayal of false friends; to appreciate beauty; to find the best in others; to leave the world a bit better, whether by a healthy child, a redeemed social condition or a job well done.....this is to have succeeded."

The Garden State has high expectations of its institutions of higher education. The investment is justified when New Jersey colleges and universities aspire to graduate physicians with the sensitivity of a social psychologist, lawyers with an examined system of personal and professional ethics, and engineers with the aesthetic sense of an artist; when they graduate teachers in love with learning, accountants with a social conscience, and scientists and scholars with enough breadth in other disciplines to comprehend the complex problems of our day; when they graduate citizens who recognize not only their rights but their duties in civic matters, spouses and parents who are both liberated and loving, and spiritual persons who journey life long on a path of enlightened faith; when they graduate people who appreciate music, art, drama and literature the quality of which, as Cicero wrote, "nourishes our adolescence, adorns our prosperity, and delights our old age," and who seek after truth, social justice, and international harmony (Adapted from Martin, March 14, 1985).

To understate the task, assessment of the personal development of college students is difficult. After setting aside the theoretical and empirically-based conclusions from hundreds of studies, we--after all--know it when we see it. Your challenge is to record these outcomes in ways that make sense in your particular institutional setting and will foster conditions that encourage personal development. Bona fortuna!

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This collection of s ..tive papers was a follow-up to Involvement in Learning (Study Group on the Conditions of Excellence in American Higher Education, 1984), a report described below which fueled the assessment movement in higher education. The initial essay defines assessment, discusses various approaches and uses of assessment, and identifies issues of concern, such as the relationships between assessment, funding, and institutional autonomy. The Harris paper is directed to those charged with coordinating and implementing assessment and discusses goals, the rationale for assessment, the selection of measurement tools, the circumstances under which locally developed, institution-specific instruments are appropriate, the attitude and behavior domains of interest, and the role of assessment centers. The Ewell and Jones paper discusses assessment costs from two perspectives, the unit of analysis and the determination of what costs are actually attributable to the assessment process. Sample tables are presented for different types of institutions. Other essays place assessment in the context of a strategy for increasing and improving learning, and of career-related education.

Astin, A.W. (1977). Four critical years. San Francisco: Jossey-Bass.

In this book, Astin summarizes the findings of the first decade of results produced under the auspices of the Cooperative Institutional Research Program. College effects are described by gender, race, and type of institution (size, residential orientation, public-private, etc.). For some variables, data for two-year colleges are reported. Chapter 2 reports information about personal development (e.g., attitudes, beliefs, and self-concept) and Chapter 6 focuses on student satisfaction. Summary tables (pp. 33, 49, 61, 175-177, 183-184) are particularly helpful. Student satisfaction was found to be a function of the characteristics of the institution and a student's involvement on campus, such as academic involvement and student-faculty interaction. For a thorough look at what must be considered in assessing outcomes and a summary of changes associated with college, Four Critical Years is superb, a "must read."

Astin, A. W. (1982). Minorities in American higher education. San Francisco: Jossey-Bass.

This book is addressed to practitioners and policy makers who are in a position to influence the experiences of minority students in predominately white colleges and universities. Some chapters will be of particular interest to faculty and staff concerned with enhancing persistence and personal development of minority students. Chapter 5 discusses factors that seem to facilitate or inhibit minority progress. For example, minority students with the best chance of graduating enter college with well-developed study habits, have relatively high self-esteem, and live on campus rather than commuting

among other variables. Standardized test scores add almost nothing to high school grades in predicting academic success. Satisfaction is predicted only by the student's own estimate of how satisfied he or she expects to be at time of entrance, not by any institutional variables. Chapter 9 summarizes the findings and Chapter 10 presents recommendations; the sections on academic and personal support services, financial aid, and minority faculty and administrators are worth noting.

Astin, A.W. (1984). Student involvement: A developmental theory for higher education. Journal of College Student Personnel, 297-308.

This informative article defines the concept of student involvement and discusses the relationship between how students spend their time (a finite resource) and outcomes. The five propositions that comprise the involvement perspective were summarized in Part VI of this report. Participation in various activities is associated with greater than average changes on many outcome measures, after controlling for initial characteristics of students. For example, being academically involved is strongly related with satisfaction with college, and involvement with faculty is more strongly related to satisfaction than any other single factor. Astin recommends some institutional interventions that are economically feasible and require less time to implement than those suggested by other theories of educational excellence.

Astin, A.W. (1985). Achieving educational excellence: A critical assessment of priorities and practices in higher education. San Francisco: Jossey-Bass.

In this volume, Astin summarizes his 25 year research program on college students and distills the major policy and programmatic implications for institutions that wish to emphasize "talent development," a view of educational excellence that emphasizes the impact of college on students. Different approaches to defining and estimating educational quality are critiqued and the concepts of equity and talent development are discussed in the context of different institutional missions and changing student characteristics. Astin elaborates on the principles of involvement introduced in the 1984 article described above and offers specific recommendations for what institutions can do to have a more potent impact on students' attitudes, values, and skills.

Astin, H.S., & Kent, L. (1983). Gender roles in transition: Research and policy implications for higher education. Journal of Higher Education, 54, 309-324.

This article draws upon the Cooperative Institutional Research Program data base (1971-1980) to estimate the degree to which college attendance influenced self-esteem and values of women. Type of institution attended and extracurricular involvment were related to differential changes in self-esteem and the development of humanitarian values. In general, leadership experiences were related to greater changes in desired directions. Attending

a selective institution also was positively related to these changes. These findings underscored the importance of participation in extracurricular activities for women, particularly if leadership responsibility is involved. A secondary, but important finding, was the positive relationship between contact with faculty and increases on self-esteem and humanitarian values. Thus, the time faculty spend socializing with students has significant implications for personal development.

Baird, L. L. (1988). The college environment revisited: A review of research and theory. In J. C. Smart (Ed.), Higher education: Handbook of theory and research, Vol IV. New York: Agathon.

This paper is a review of the first 30 years of theory and research on environmental assessment. Baird analyzes evidence from studies of college impact on students and evaluates the validity and reliability of popular approaches to assessing the influence of the environment on student development and learning. The material covered ranges from Pace and Stern's pioneering descriptive work on college environments, to Clark and Trow's student subcultures, to perceptual approaches (Moos), to Pace's current emphasis on quality of student effort. Instruments developed to assess environments are discussed. Baird summarizes the difficulties inherent in accurately measuring the impact of college environments on student behavior. This paper is an ambitious effort of considerable scope and is recommended to those who are already familiar with approaches to environmental assessment, such as the material in the Walsh (1973) monograph which is described below.

Bowen, H.R. (1977). Investment in learning. San Francisco: Jossey-Bass.

This is arguably the most compelling and comprehensive treatise of the goals and outcomes of higher education. Chapter 4 focuses on aspects of emotional and moral development including college-related changes in values, aspirations, self-concept, and personal discovery. In Chapter 6, the college-influenced qualities that make up practical competence are described. Chapter 7 synthesizes findings related to personal and intellectual development. Bowen concludes that college contributes significantly to the adaptability of individuals. Other chapters address institutional differences, societal benefits, and individual and collective economic returns of the investment in higher education.

Boyer, E. L. (1987). College: The undergraduate experience in America. Princeton: Carnegie Foundation for the Advancement of Teaching.

A widely-cited study, College addresses eight key issues, or tensions, in American higher education: (a) a discontinuity between high schools and colleges and universities; (b) confusion over goals; (c) divided loyalties and career concerns of faculty; (d) tensions between creativity and conformity in the classroom; (e) the separation of academic and social life on campus; (f) disagreement about how a college should be governed; (g) uncertainty about how to measure the outcomes of college; and (h) the gap between what is taught in

college and the demands of the world beyond the campus. Boyer analyzes each issue and offers suggestions for how higher education should respond. The chapter on outcomes is focused primarily on intellectual development (e.g., general education, the major field). Although Boyer acknowledges that personal development is of great importance, he notes that measurement in this area is extremely difficult. One suggestion is to compile a portfolio which contains records of a student's campus and service activities. Interviews could be conducted to assess the longer term effects of involvement.

Chickering, A.W. (1969). Education and identity. San Francisco: Jossey-Bass.

In this landmark work, Chickering presented what has become the most popular psychosocial theory of student development. The seven vectors of development, described in Part II of this report, were distilled from a longitundinal study of students at several colleges in New England during the 1960s. Assessors will find the descriptions of the tasks associated with the development vectors to be useful in gaining an appreciation for how the college experience can contribute to desirable changes in students. Institutional policies and programs that facilitate development are discussed. Chickering's recommendations are sound (e.g., personal development opportunities can be enhanced by reducing the psychological size of large universities). However, they are not necessarily easy to implement, given limited funds and faculty reward systems. Nonetheless, faculty and staff concerned about how to increase student involvement should be failiar with Chickering's work.

Chickering, A.W. (1974). Commuters versus residents. San Francisco: Jossey-Bass.

The purpose of this study was to compare the educational benefits that accrue to commuter and resident students. The findings pointed to dramatic differences in personal development outcomes that favored resident students, differences that were subsequently corroborated by other studies (e.g., Pascarella, 1984). Chickering analyzed why such differences can be expected and offered recommedations for institutions that enroll significant numbers of part-time and commuter students so that the impact of college can be enhanced for this increasing proportion of college attenders.

Cohen, A. M., & Brawer, F. B. (1982). The American community college. San Francisco: Jossey-Bass.

Although this comprehensive work does not directly address outcomes assessment, the chapters on the purposes of the community college and students may prove helpful in identifying outcomes appropriate to this type of institution (see also Bray & Belcher, 1987). Chapter 13 describes the benefits of attending a community colleges and how to assess those outcomes. Attrition is discussed as an institutional artifact which can mask students' achievements if student departure is always viewed as a negative decision.

Although far more questions are raised than are answered, this volume should be useful to community college assessors. A caveat; personal development per se is not treated systematically.

Evans, N. J. (1983). Environmental assessment: Current practices and future directions. Journal of College Student Personnel, 24, 293-299.

This paper discusses the "state of the art" of environmental assessment and interventions to redesign certain aspects of college environments. After a brief review of the history of using ecological concepts to study student behavior and satisfaction, several problems that limit more extensive use of envrionmental assessments are examined (e.g., focus on negative behaviors, methods of assessment) and suggestions are offered for working through these problematic issues. Although this is a conceptual piece, the ideas merit consideration and may help campus assessment teams avoid the many of the pitfalls that others have encountered. Many of the references will appeal to assessment teams that are emphasizing environmental assessment as a key strategy in the campus assessment effort.

Ewell, P. T. (1984). The self-regarding institution: Information for excellence. Boulder, CO: National Center for Higher Education Management Systems.

Useful and readable, this volume is divided into two major sections: (a) categories of outcomes, and (b) the attributes of successful institutional assessment programs. Outcomes, if they are to demonstrate or lead to excellence, must be consistent with institutional objectives, students' educational goals, and the expressed needs of society including those of various constituencies. The substantive outcomes, and the value the institution gives to them, are related but distinct aspects of assessment. Another key distinction is the focus of assessment--should the product or the process be emphasized? Chapter 3 presents a four category classification scheme: (a) knowledge, (b) skills, (c) attitudes/values, and (d) relationships with society. The third category, which is most directly related to personal development, consists of personal goals and aspirations, general attitudes, values, satisfaction, attitudes toward self, and attitudes toward others. The attributes section contains examples of self-assessments, a review of common criticisms of assessments, and four themes that characterize successful assessments: (a) a focus on the curriculum, (b) choosing the approach to data analysis, (c) the importance of comparison (among units of like type), and (d) the importance of participation of key actors (e.g., faculty, students, etc.). This is one of the "must read" works on assessment.

Ewell, P. T. (Ed.). (1985). Assessing educational outcomes. New Directions for Institutional Research, No. 47. San Francisco: Jossey-Bass.

In the opening chapter, Pace offers a common sense look at assessment, addressing such issues as how to choose instruments, involving students,

faculty, and alumni in the process as judges, and the utility of longitudinal versus cross-sectional studies. The next three chapters present case studies of assessments at different types of institutions: (a) a large, public research university, (b) a medium public institution, and (c) a small, private liberal arts college. The third section of the book examines the implications of using a longitudinal data base, surveying students after they have left the institution, and strategies for reporting the results of outcomes studies. In the final chapter, a guide to conducting an assessment, Ewell describes the role of the institutional researcher and identifies four important lessons, coupling each with a proverb: (a) look before you leap, (b) make sure the shoe fits, (c) there is more than one way, and (d) the objective is to learn. Roughly translated, these mean: make use of the tools and procedures already available, tailor the outcomes assessment to your own institution and curriculum, the best assessments employ multiple measurement criteria and techniques, and last but not least, improvement in teaching and learning is the ultimate goal of outcomes studies.

Feldman, K.A., & Newcomb, T. (1969). The impact of college on students. San Francisco: Jossey-Bass.

This classic summarizes the research on students through the mid 1960s. The influence of a variety of factors (e.g., size of institution, student background characteristics, academic major) on personal development from the freshman to senior year are examined. Institutional size and type were related to different outcomes. Chapter 7 describes the powerful influence of living environments and Chapter 10 describes the persistence of college-related changes into the alumni years. Although dated, this volume remains an important summary of the effects of college. Ernest Pascarella and Patrick Terenzini are in the process of updating this work although their book will not be available from Jossey-Bass until 1990.

Hanson, G. R. (Ed.) (1982). Measuring student development. New Directions for Student Services, No. 20. San Francisco: Jossey-Bass.

This volume summarizes the current state of the art in measuring various dimensions of student development. Written for a practitioner audience, presentations emphasize the rationale for assessing developmental changes during college, the domains of development that can be measured, and some of the measurement problems involved. Two chapters are strongly recommended. In Chapter 3, Hanson discusses some of the obstacles to institution-based assessment. Chapter 4 is a review of various instruments and highlights some of the issues in the administration, scoring and interpetation of results. A brief annotated bibliography is appended to direct the reader to additional resources.

Huebner, L. A. (Ed.). (1979). Redesigning campus environments. New Directions for Student Services, No. 6. San Francisco: Jossey-Bass.

The campus environment can be conceptualized as an ecosystem, a view that

emphasizes the symbiotic relationship between students and various aspects of college environments. The ecosystem model holds that the behavior of students and institutional factors shape each other. In the opening chapter, the origins and theoretical foundations of the ecosystem perspective are discussed. The four chapters which follow describe applications of the ecosystem proach in residence halls, at a small college, in a consultative relationship between a counseling center and a school of medicine, and at a dean of students office at a major university. Additional resources are appended.

Jacobi, M., AStin, A., & Ayala, F., Jr. (1987). College student outcomes assessment. ASHE-ERIC Higher Education Research Report, No. 7. Washington, D.C.: Association for the Study of Higher Education.

The executive summary of this 125 page monograph succinctly summarizes the major points (and strengths) of the presentation. In this volume, assessment teams will find explained, in straightforward prose, reasons why assessments fail to live up to their potential as management tools, a concise but comprehensive list of factors that enhance the utility of outcomes research, and a 15 question "self-study" guide intended to assist institutions committed to assessment. One caveat. While the talent development perspective focuses on inprovement in student performance from entry to exit, all of the assessment instruments described here are cognitive or intellectual; personal development is not emphasized. Nevertheless, this is an excellent nuts and bolts ("how to do it" and "what questions to ask") manual.

Knefelkamp,. L., Widick, C., & Parker, C. A. (1978). (Eds.). Applying new developmental findings. New Directions for Student Services, No. 4. San Francisco: Jossey-Bass.

Most of this monograph is devoted to summarizing seven developmental theories that can be used to understand how students grow and change during the college years: (a) Erik Erikson, (b) Arthur Chickering, (c) William Perry, (d) Lawrence Kohlberg, (e) Jane Loevinger, (f) Douglas Heath, and (g) Roy Heath. Each chapter provides an overview of the theory and its propositions, summarizes the empirical research on the theory, and suggests implications for using the theory in the practice of student affairs work. The closing chapter discusses how developmental theory can be used with increasing numbers of students different from white, tradtional age students. Although published a decade ago, this volume is still a useful resource for faculty and staff who are interested in a quick overview of different approaches to understanding college student development.

Korn, H. A. (1986). Psychological models of the impact of college on students. Ann Arbor, MI: University of Michigan, National Center for Research to Improve Postsecondary Teaching and Learning.

Korn describes five of the best known approaches to measuring the impact

or "impress" of college on students: Bowen, Feldman and Newcomb, Pace, Astin, and Pascarella. For example, Pace's model is comprised of four components: (a) student characteristics at entrance, (b) college experiences and events, (c) the relationships between the amount, scope, and quality of effort students invest in using institutional resources (e.g., faculty, staff, facilities), and (d) student and college impress as indicated by differences between criterion scores at entrance and exit (e.g., self-ratings of progress, benefits, satisfaction). Following a historical review of methodological problems related to different disciplinary approaches to assessment and the need for an integrative model, various theories of cognition and affect are discussed. The closing section evaluates the utility of the Pace and Pascarella models for analyzing the complex person-environment interactions which contibute to college impact and outcomes. This paper is an excellent overview of different approaches to examining outcomes and becoming acquainted with sophisticated college impact models. It is well-written and a less time-consuming "read" than its table of contents suggests.

Kuh, G.D. (1981). Indices of quality in the undergraduate experience. AAHE-ERIC Higher Education Research Report, No. 4. Washington, D.C.: American Association for Higher Education.

This short (40 pp.) monograph reviews the major approaches to assessing quality and synthesizes the relationships between quality and context variables (e.g., financial resources, institutional mission), inputs (e.g., student ability and other characteristics), involvement (e.g, student effort, interaction with peers, faculty, and other institutional resources), and outcomes (e.g., persistence, achievement, and satisfaction). Kuh distilled six conditions that seem to be related to a high quality undergraduate experience. Quality was found to be mediated by: (a) size, (b) continuity of institutional agents, (c) involvement on the part of students and faculty, (d) a generative learning community, (e) the degree of effort put forward by both students and faculty, and (f) a coherent and consistent institutional purpose.

Kuh, G.D., Bean, J.P., Hossler, D., & Stage, F.K. (Eds.). (in press). ASHE Reader on college students. Lexington, MA: Ginn.

Research on college students is spread across scores of journals and hundreds of books. This collection of previously published papers, which will be avaliable in January, 1989, will provide an overview of the research on college students. The 23 selections include some "classics" as well as the most recent theoretical and empirical work in the field. The papers are grouped into seven categories: (a) transition to college, (b) student characteristics including articles on non-traditional as well as traditional age students, (c) college environment, (d) student development, (e) attrition, (f) outcomes, and (g) methodological issues related to college student research. An attractive feature of this collection is the Bibliography which contains about 350 entries representing some of the best theory and research on college students.

Lenning, O. T., Sauer, K., & Beal P. E. (1980). Student retention strategies. AAHE-ERIC Higher Education Research Report No. 8. Washington, D. C.: American Association for Higher Education.

Based on a review of the literature, this monograph describes strategies that have effectively improved student retention. Two types of studies are reviewed: (a) those that identify characteristics and attitudes common to persisters and non-persisters, and (b) the characteristics of institutional interventions that increase retention. A list of action strategies is provided and descriptions of several successful retention programs are described. The success of retention programs are, to some degree, a function of where the retention office/program is administratively assigned. The authors correctly note that staying in school is not the best option for all students and, therefore, should not be the only aim of a retention program.

Micek, S.S., Service, A.L., & Lee, Y.S. (1975). Outcome measures and procedures manual. Boulder, CO: National Center for Higher Education Management Systems at the Western Interstate Commission of Higher Education.

This manual defines a wide range of measures of the outcomes of post-secondary education and suggests procedures for collecting assessment data. An outcomes-oriented planning, management, and evaluation cycle is described. Outcome domains, such as knowledge and skills development, satisfaction, and personal development, are defined and described. Unfortunately, the material to be used in collecting personal development and social/cultural development data is not included in the 1975 issue. Such information may currently be available from NCHEMS. Appendix A contains an inventory of higher education outcome variables and measures. This technical report will be helpful in defining and classifying outcomes, and in designing local instruments to obtain data.

Mishler, C.J. (1983). Adult's perceptions of the benefits of a college degree. Research in Higher Education, 19, 213-231.

The importance of this study lies in its subject population, students who graduated from baccalaureate programs at the age of 29 or over. Graduates reported multiple, positive job changes as a result of earning a degree, such as initial full-time placement, increased pay, increased job responsibility and security, and enhanced respect from employers and co- workers. Gains in personal development were also noted; 55% of the respondents reported positive changes on: sense of achievement and satisfaction, intellectual curiosity, awareness of interests, abilities, and limitations, analytical thinking, and the ability to learn and work on one's own. Respondents also reported satisfaction with the social aspects of their college experience, despite the difference in age between the respondents and the majority of students who were in their classes. About 85% reported that if they had it to do over, they would make the same decision and return to school to earn their degree.

Nucci, L., & Pascarella, E. T. (1987). The influence of college on moral development. In J. Smart (Ed.), Higher education: Handbook of theory and research, Vol III (pp. 271-326). New York: Agathon.

The purpose of this comprehensive review of the higher education literature is to answer the question: Does college have a significant impact on a student's moral judgment and behavior? In formulating an answer, the authors review moral development (Kohlberg, Gilligan) and other related theories (e.g., Kitchener and King, Rest, among others) and the instruments used to measure moral development (e.g., Moral Judgment Interview, Defining Issues Test, Reflective Judgment Interview). Following a review of the research on moral development, they concluded that exposure to college is related to more sophistcated reasoning about moral issues. Additional research is needed to determine the differential impact on moral development associated with attending various types of institutions and different kinds of college experiences. The exhaustive reference list is a bonus.

Olivas, M. (Ed.). (1986). Latino college students. New York: Teachers College Press.

This is one of the few publications focused on the Hispanic [illegible]nce in American higher education. Many of the chapters are not directly related to assessment of learning and personal development (e.g., high school activites, achievement before and during college, test-bias). However, Chapter 11 underscores an often overlooked but obvious point: Chicanas and Chicanos are individuals and the quality of their college experiences differ widely, similar to white students. Nonetheless, the authors have identified some common barriers with which most Hispanics must deal, such as varying levels of parental support (women get less than men), ability to handle stress related to academic matters (women report more stress), and reduced persistence rates for students who attend community colleges. Faculty and staff are encouraged to review this or a related work (e.g., Attinasi, in press) before beginning an assessment program with Hispanic students.

Pace, C.R. (1979). Measuring outcomes of college. San Francisco: Jossey-Bass.

Pages 95-113 offer a succinct summary of 50 years of outcomes research through the mid-1970s. Although many economic and occupational/vocational attainment and satisfaction variables are mentioned, emphsis is given to measures of satisfaction and attitudes toward college, political activities, cultural activities and interests, critical thinking and expression, breadth of knowledge, interpersonal skills, and values and goals. Overall, positive changes are found consistently over time and across studies.

Pace, C. R. (1984). Measuring the quality of college student experiences. Los Angeles: University of California-Los Angeles, Higher Education Research Institute.

In this technical manual, Pace outlines the conceptual underpinnings for studying the degree of effort expended by students to determine differential impacts of college. Pace's argument is simple but compelling: those students who put more effort into academic and social activities during college will learn more and evidence greater gains on measures of intellectual, social, and personal development. Pace's own research, subsequently corroborated by others, has confirmed this common sense hypothesis. Pertinent information about The College Experiences Questionnaire is provided, an approach which relies exclusively on student self-report data. Institutions must obtain an estimate of the degree of effort student expend when asssessing the quality of the undergraduate experience. It matters little if faculty and student affairs professionals are well-intentioned but students are complacent. Pace's materials can provide this kind of information.

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. Review of Educational Research, 50, 545-595.

A college is a socializing organization. Much of what happens (or does not happen) is a function of the degree to which students are in contact with important role models. This paper is a critical review and synthesis of the research on the association between student-faculty informal out-of-class contact and various outcomes of college. Significant positive associations were found between the extent and quality of student- faculty informal contact and students' educational aspirations, attitudes toward college, academic achievement, intellectual and personal development, and persistence to graduation. Student satisfaction with the kind and amount of faculty contact was hypothesized to influence subsequent contact. The findings from this and other research point to the importance of interactions beyond the classroom or laboratory with significant institutional agents in encouraging students' intellectual and personal development. The implications are clear for maximizing college impress; faculty must be available and spend time with students.

Pascarella, E. T., Ethington, C. A., & Smart, J. C. (1988). The influence of college on humanitarian/civic involvement values. Journal of Higher Education, 59, 412-437.

Using data collected between 1971 and 1980 by the Cooperative Institutional Research Program survey, the effects of four sets of variables on the development of humanitarian/civic values were examined: (a) student precollege traits, (b) the structural characteristics of the college atttended, (c) the college experience, (d) and postcollege occupation. Neither institutional selectivity nor race were found to be significant factors on the development of humanitarian values. Taken as a whole, the undergraduate college experience had a "significant, unique impact on the humanizing of values" which was independent of all other variables. Involvement in social-leadership activities was a particularly potent and positive factor, both directly and as a mediator of the influence of other causally antecedent variables. This finding supports Astin's involvement theory and has implications for assessment procedures and program design.

Differential impacts across race and gender are also discussed. This is a fairly technical paper which includes an excellent bibliography.

Perry, W., Jr. (1970). Forms of intellectual and ethical development in the college years: A scheme. New York: Holt, Rinehart & Winston.

Paraphrasing the author's own words, this book traces a path from adolescence into adulthood. Perry's approach to this task, however, differed from other observers who had chronicled maturation during the college years. Perry focused on the forms and cognitive structures students used to understand their experiences rather than on the substance of the experiences. Based on his conversations with Harvard students Perry formulated a cognitive developmental theory that has prompted more research on college students than any other. The Perry scheme of intellectual development encompasses nine positions, progressing from simplistic, "right-wrong" views of the world, to an acknowledgement of an uncertain "authority," to an appreciation of contextually relative knowledge, and finally--for some students--an affirmation of multiple responsibilites through personal commitment. Implications of the scheme are discussed, although subsequent work (e.g., Knefelkamp et al., 1978; Rodgers, 1980, in press) has extended the scope of Perry's initial applications.

Rodgers, R. F. (1980). Theories underlying student development. In D. Creamer (Ed.), Student development in higher education (pp. 10-95). Cincinnati: American College Personnel Association.

This lengthy chapter (85 pp) provides a road map of the kinds of theories and models available to understand students' development during college and to use theoretical foundations to design classroom and other kinds of learning environments to maximize personal development. The table on page 13 categorizes 34 theories into four clusters: (a) cognitive developmental, (b) psychosocial, (c) person-environment interaction, and (d) humanistic-existential. A fifth category is devoted to process models, or strategies for applying theory in out-of-class environments. This presentation is the most comprehensive treatise on the use of student development theory in student affairs. An updated version (Rodgers, in press) will appear in a forthcoming book edited by Creamer which should be available from the American College Personnel Association sometime in 1989.

Sanford, R. N. (Ed.) (1962). The American College. New York: Wiley.

A classic in the college student literature, this voluminous (1000+ pp.) collection of papers includes some of the best thinking and research on the college student experience ever published. The chapter contributors composed a "Who's Who" of higher education scholars at the time the book was published. Many of the entries are understandably dated. However, several chapters are worth reviewing: Chapter 6 describes the developmental status of the first-year, traditional age college student; Chapter 11 discusses the influence of the curriculum on personal development; Chapter 13 describes how

peer groups form and the influence of the peer group on student behavior. These papers describe concepts that illuminate the udnergraduate experience but do not refer directly to assessment. Thus, this volume is best used as background reading.

Shipberg, A. (Ed.). (1980). Providing student services for the adult learner. New Directions for Student Services, No. 11. San Francisco: Jossey-Bass.

This sourcebook presents a brief to modify "business as usual" in student services in order to adequately respond to the increased number of adult learners at many institutions. After a review of demographic shifts (of which most faculty and student affairs professionals are now well aware), themes characteristic of adult development are reviewed. The remaining chapters discuss how certain student services (i.e., orientation, student activites, student government, etc.) can respond to this clientele. The Adult Student Resource Center is described as a way of attracting and retaining adult learners. Recommendations and implications for educational programs in addition to student services are also mentioned. This monograph provides a good, general overview of issues with which college and university staff and faculty must deal when looking for ways to enhance the quality of the adult student experience.

Solmon, L.C., & Taubman, P.J. (Eds.). (1973). Does college matter? New York: Academic Press.

This volume is a collection of papers discussing the benefits of higher education. The introduction summarizes the major conclusions of each essay. Literature reviews are presented in the first section of the book. Chapters relevant to outcomes assesment and personal development include Astin's input-output-environment model (pp. 107-127) and Hartman's discussion of often overlooked societal benefits, such as political leadership, life-long learning, and improving the inflation-unemployment tradeoff (pp. 271-292). Freeman (pp. 322-324) offers a pointed critique of the social benefits claimed for higher education. Ellison and Simon marshall data which support the notion that personality changes are associated with college attendance, and they explain how such changes can be measured. They also discuss how to conduct outcomes research and the difficulties that arise when attempting to use research to modify policy.

Stewart, S. S. (Ed.). (1983). Commuter students: Enhancing their educational experiences. New Directions for Student Services, No. 24. San Francisco: Jossey-Bass.

Relatively little practical information about commuter student programs and services has been published. Stewart and her colleagues offer useful suggestions for how institutions can respond to the particular needs of commuter students and enhance the quality of their learning and personal development experiences. Chapter 2 recommends periodic institutional assessments to determine the degree to which services and programs are "user-friendly." In Chapter 4, the role of the commuter student's parents and

friends is examined. In the final chapter, more than one hundred examples are cited of practices that can enhance a commuter student's educational experience.

Study Group on the Conditions of Excellence in American Higher Education (1984). Involvement in learning. Washington, DC: U.S. Department of Education.

This volume, commissioned by the National Institute of Education, advises that measures of educational excellence should be presented in terms of student outcomes. Characteristics of personal development (e.g., self-confidence, persistence, leadership, empathy, social responsibility, and understanding of cultural and intellectual differences) are mentioned. Three conditions foster excellence: (a) student involvement, (b) high expectations, and (c) assessment and feedback. Recommendations to encourage involvement include emphasizing the early years of college ("front-loading" resources), increasing faculty-student interaction and student responsibility for learning, and implementing a comprehensive guidance/advisement system. Recommendations for assessment include careful selection of instruments and procedures, the importance of faculty participation in assessment, and the desirability of widely disseminating the results of assessments. Involvement In Learning is a important document which provides a framework for understanding the rationale for the assessment movement.

Walsh, W. B. (1973). Theories of person-environment interaction: Implications for the college student. Iowa City, IA: American College Testing Program.

This monograph discusses five theoretical perspectives on person-environment interaction: (a) Barker's behavior setting theory; (b) the subculture approach; (c) Holland's theory of personality types and model environments; (d) Stern's need x press = culture theory; and (e) Pervin's transactional approach. Walsh compares and contrasts the theories and suggest implications for how each theoretical perspective can be used to guide research into campus envrionments. This is a well-written presentation of difficult material. A more concise version will be available in Kuh, Bean, Hossler and Stage (in press), described above.

Weathersby, R. P., & Tarule, J. M. (1980). Adult development: Implications for higher education. AAHE-ERIC Higher Education Research Report No. 4. Washington, D.C.: American Association for Higher Education.

This report is one of the few publications that applies adult development theory to issues in higher education. Concepts of development germane to adult learners are reviewed and the interests and motivations of adults seeking higher education are summarized. Typical institutional responses to adult learners are discussed and recommendations are offered to provide an impetus for alternative approaches to counseling and teaching adult learners. The authors argue that human development, including transitions

characteristic of life stages, is a major outcome of a student's experience in college. Implications for program development, curriculum and instructional methods, faculty development, and student services are presented. This monograph length (60 pp) report is a good starting point for persons wishing to become familiar with issues related to the adult learner's experience in higher education.

Wilson, R., Gaff, J., Dienst, E., Wood, L., & Bavry, J. (1975). College professors and their impact on students. New York: Wiley.

This is an important study of how students benefit, in addition to knowledge acquisition, from contacts with faculty. For example, students who have more contact with faculty become more certain of their career choice, and are more satisfied with both academic and non-academic aspects of college. Also, students who have more contact with faculty report more progress in educational and personal development and in the development of academic skills and competencies. It is worth noting that students who have more contact with faculty are different from their peers in some important ways. They are more likely to: be interested in an academic career, read books for leisure, and to attend cultural events. Nonetheless, in spite of the self-selection (or perhaps mutual selection) process that encourages higher levels of informal contact between some students and faculty, this study underscores once again the important influence contact with faculty has on student development.

Winter, D.G., McClelland, D.C., & Stewart, A.J. (1981). A new case for the liberal arts. San Francisco: Jossey-Bass.

The title of this book ought not discourage interest on the part of faculty and staff from other types of institutions. The material is, to varying degrees, applicable to other settings, and the descriptions of methodology, interpretation, and use of evidence are excellent. Going beyond a philosophical defense of the liberal arts, this book discusses the goals and effects of a liberal arts education. Their analysis is summarized in a taxonomy (pp. 12-13) derived from multiple sources. How to measure effects is discussed in Chapter 2, which also contains a section on measurement instruments. The third chapter, while focusing on the effects of one school, does provide a concise analysis of expected effects, measurement tools for each, and the results. Other topics include long- term effects, explanatory models, and suggestions for policy changes. The chapter, "From Evidence to Action," presents five criteria needed to effectively assess outcomes of a liberal arts education that can be adapted for use at other types of institutions.

Appendix A

Personal Development Outcomes Taxonomy[1]

The taxonomy represents personal development outcomes often associated with college attendance. With some adaptations, the outcome categories can be used to monitor the persistence of changes after college. The taxonomy can be coupled with a comparable list of cognitive outcomes to form a 2 x 2 matrix; viz, affective and cognitive outcomes by psychological and behavioral components (Astin, 1977).

I. Psychological Characteristics

A. **Attitudes/beliefs:** political and social consciousness, appreciation of cultural and racial diversity, willingness to make commitments and/or take on new challenges, recognition of the individual worth of persons different from oneself, freedom from irrational prejudice.

B. **Integrated system of values and ethics:** acknowledgement of larger system of values compatible with a world-view, principled moral reasoning, concern for the welfare of others;

C. **Self-concept:** realistic self-worth, sense of confidence and competence, acknowledgement of interdependence, acceptance of one's physical limitations.

D. **Autonomy:** ability to make independent judgments and be responsible for one's decisions;

E. **Aspiration:** achievement orientation linked to long and short term goals;

F. **Aesthetic awareness:** appreciation of beauty, the symmetry of nature, and the artistic qualities of life;

G. **Spirituality:** sophisticated, internally consistent religious beliefs, consideration of fundamental questions of human existence within a spiritual framework;

H. **Psychological well-being:** self-assured, positive disposition, absence of debilitating anxiety and neuroticism.

II. Behavioral Characteristics

A. **Citizenship/leadership:** effective participation as a leader or follower in campus, civic and community groups, exercise of democratic responsibilities (e.g., voting), voluntarism, awareness of current issues;

B. **Interpersonal relationships:** interacts freely with a diverse cross-section of people, cooperative, adaptable, appropriately empathic or sympathetic, maintains friendships within and across gender lines, achieves interpersonal intimacy;

C. **Physical/physiological well-being:** maintains a body-image and fitness program consistent with a healthy self-concept;

D. **Avocational interests:** maintains an appropriate balance between work and leisure, discovers and makes time for new interests;

E. **Socially competent:** comfortable around new acquaintances as well as friends, functions well in a variety of settings, responds appropriately in novel situations;

G. **Economic productivity:** consumer efficiency, economically self-supporting, actively preparing for or engaged in productive vocational pursuits or some other endeavor;

H. **Communication:** uses oral and written language proficiently, exhibits competence in public forums, accurately communicates information, attitudes, and emotions, demonstrates awareness of varying forms and levels (e.g., information transmission vs. intimacy) of communication.

[1]This list is based on Astin (1977), Bowen (1977), Ewell (1984), Lenning (1980), Micek, Service and Lee (1975), and Winter et al. (1981).

APPENDIX B

Generativity Checklist

1. Do we admit/house/advise/teach more students than we can care for?

2. Do we hire faculty and staff with the economic knowledge that we can only retain a few?

3. Do the demands placed on new tenure-track faculty inhibit their capacity for generativity with their students?

4. Are we contributing to the isolation of generations of students, faculty and staff and thus inhibiting the role-modeling of cross-generational cooperation for students?

5. Do we equally reward the passing on of knowledge (teaching) as much as its creation (research)?

6. Do we equally reward departments that exercise quality control as much as new and potentially faddish programs?

7. Are we people who differ in roles and perspectives but who can unite in the common purpose of "establishing and guiding the next generation?"

8. Do we role-model the qualities we wish emulated by the next generation?

9. Do we hear each others' voices?

10. Can generativity become our common purpose?

11. Is generativity a sufficient concept to allow all our differing voices to join together?

Adapted from Knefelkamp (1981)

APPENDIX C

Student Development Outcome Assessment:

A Model for Beginning

T. Dary Erwin, Al J. Menard, Robert L. Scott

James Madison University

Paper Presented at the Annual Meetings

of the American College Personnel Association

March, 1988

Handout of Student Development Goals and
Related Environmental Impacts for
the Division of Student Affairs at
James Madison University

Affective Assessment Summary

Listed below are activities that each office directs, promotes, or encourages that have the potential for influencing students' affective development.

ASSOCIATE VICE PRESIDENT FOR STUDENT AFFAIRS

Activity	Area of Development
Orientation social activites such as sharing a room, going to a dance, meeting and eating with many new and different people	Changing existing values, developing tolerance, assisting in the establishment of an identity, strengthening the quality of interpersonal relationships and increasing positive self-perceptions
Orientation academic activities such as receiving placement scores, meeting with an advisor, deciding on courses, or registering	Increasing positive self-perceptions and developing a sense of purpose
Being seen judicially	Increasing tolerance, better sense of identity, or greater management of emotions
Withdrawing from school	Developing a sense of purpose, a deeper set of values, a better self-concept, or moving from dependence to independence
Being a member of a fraternity or sorority	Strengthening one's values, broadening tolerance, developing sexual identity, increasing positive self-perceptions, strengthening interpersonal relations or enhancing moral development

FINANCIAL AID OFFICE

PROGRAM/SERVICES	DEVELOPMENTS
Responsibility is placed upon the student to complete all necessary applications for financial assistance. The Financial Aid Office encourages students to apply for programs that are self-help in nature. Through student employment and loans, it is deemed desirable by the Financial Aid Office that students help finance their education. Through these means student perceptions are affected by.....	The development of an awareness for the value of money, a precious commodity that is not easy to earn and must be spent wisely. The awareness that one must save his/her earnings to gain the most from his/her education. Taking an active role in decision making and developing independence from his/her parents.

Loan counseling, entrance and exit interviews. Due to this counseling, students.....	Default rates are kept at a minimum. Credit ratings are being established for future credit.

COUNSELING AND STUDENT DEVELOPMENT CENTER

ENVIRONMENT/PROGRAM SERVICES	DEVELOPMENT
Personal counseling (group and individual) Outreach programs Educational skills Consultation Teaching	Thinking: dualistic commitment
Personal counseling (group and individual) Outreach programs Pre- and paraprofessional training Consultation	Moral Development: ego-centered community
Personal counseling (group and individual) Outreach programs Educational skills Career development Pre-professional and paraprofessional training	Development of confidence
Personal counseling (group and individual) Outreach programs Pre-professional and paraprofessional training	Development positive self-perceptions
Career development Personal Counseling (group and individual)	Purpose
Personal Counseling Career development Outreach Crisis Intervention Paraprofessional and pre-professional Training Consultation	Development of autonomy
Personal counseling Outreach Crisis Intervention Paraprofessional and pre-professional Services	Meaningful relationships

Personal counseling
Outreach
Teaching
Consultation

OFFICE OF ADMISSIONS

PROGRAMS, SERVICES AND ACTIVITIES	DESIRED OUTCOME
College Night Programs Group Conferences Individual Contacts Special Prospective Student Events **Comment:** The Admissions staff emphasize with students the importance of focusing on their own interests, goals, and needs in selecting a college	The student develops autonomy from family and peers
College Night Programs Group Conferences Individual Contacts Special Prospective Student Events **Comment:** The Admissions staff discuss with students the steps involved in making good decisions about their college education	The student develops good decision-making skills
Selection Process in the Office of Admissions **Comment:** One of the goals in the JMU selection process is to develop a diverse student body with the belief that diversity will foster a stimulating and challenging educational environment both inside and outside of the classroom	The student develops tolerance for differing opinions and recognizes alternative perspectives
All Admissions Activities and Contacts **Comment:** The Admissions Office tries to foster, in all its various contacts, a warm, supportive, and positive attitude towards students in an effort to have them feel good about themselves, their accomplishments, and James Madison University	The student develops positive self perceptions

CAREER PLANNING AND PLACEMENT

Services	Areas of Affective Development
Career Counseling Job Search Workshops	**Dualism--- Relativism** There is only one right occupation for me - locus of control within the

Career Days Classes Career Library	person. Individual takes responsibility for career decisions
On Campus Recruiting Experimental Education (internships, externships, part-time, and summer work) Job Search Workshops	**Self Confidence** Increased self confidence, positive self-perceptions
Career Counseling Career Planning Workshops Career Days	**Developing Purpose in Future Plans** Establishing career (vocational) identity
Career Counseling Job Search Workshops Classes	**Developing Career Autonomy** Dependent--- independent Ex. - Go to Career Planning and Placement, they will get you a job - others have the answers to their career concerns (i.e. CP&P staff, faculty, parents, etc.) Teaching students to take responsibility for career decision making process

HEALTH CENTER

Environment	Development
Decision to seek information regarding birth control	Moral Development
Choosing a form of birth control	Moral Development/Recognizing alternative perspectives/Developing meaningful relationships
Seeking assistance with pregnancy	Moral Development/Recognizing alternative perspectives
Addressing health concerns through the self-care cold clinic	Develop confidence/Autonomy from family/peers
Making decisions about how they are going to deal with their medical concern (rather than making no choice until the crisis occurs)	Recognizing alternative perspectives
Discuss with health/wellness staff options/opportunities for health care/prevention	Develop confidence/Positive self-perceptions
Participation in educational programs to broaden their knowledge/understanding of health issues	Develops autonomy/Develops confidence

OFFICE OF THE DEAN OF STUDENTS

Services	Development
Leadership Development Cultural Programming Town and Campus Outreach	Move students to more complex structures for organizing and viewing the world (i.e. from dualism to commitment)
Activities that emphasize Interpersonal Complexity	Moral development moving towards awareness and understanding of societal needs
Academic and Social Skill Workshops	Developing confidence and knowing limitations
Workshops addresssing: Study Skills Test Anxiety Time Management Experiences affecting career choice	Students develop positive self perceptions
One to one contact with Academic Monitors	Pursuit of future goals
Students entering JMU: New Transition people New Commuter people	Develop autonomy
Educational and Social Programming planned and executed by student organizations	Meaningful peer relationships and tolerance

OFFICE OF RESIDENCE LIFE

PROGRAM/SERVICES	DIMENSION
Student involvement in decision making through hall councils, residence hall association, SGA Housing Advisory Committee. Programming centered on cultural, social, ethnic and sexual diversity.	How students change their way of thinking from a dualistic, right/wrong perspective to a way of thinking that recognizes alternative perspectives to a view that we never have all the answers but commitments need to be made.
Emphasis on community service projects including but not limited to: Feed-a-Family Logan's Run Gemeinschaft House	How a student's moral development changes from a perspective that moral decisions are based on what is good for me, to what is good for the people around me, to what is just for the larger community.
Student staff training and development. Programming around social and interpersonal skills.	How a student develops confidence in one's capabilities within the limitations of one's skills, talents, and experiences.
Recognition of the importance of the individual student; hold the individual responsible for their action (i.e.,	How a student develops positive self perceptions.

discipline, room sign-up, etc.)	
Career counseling with senior staff members programming around career objectives in halls.	How a student develops purpose in future plans.
Holding students responsible for their actions, feelings, emotions, living environment; alcohol education (peer counseling).	How a student develops autonomy from family and peers.
Programming on interpersonal relationships	How a student develops meaningful relationships with members of the same gender and members of the opposite gender.
RAFT debates; discussion forums, visiting scholars--in residence.	How a student develops tolerance for differing opinions.

Office of Student Activities
Affective Development

Affective Development is at the very heart of the programs, activities and services of the Office of Student Activities at James Madison University. It is reasonable to assert that all functions of the office are related to one or more of the dimensions of Affective Development as defined by the Division of Student Affairs.

Development is fostered and facilitated in a variety of ways, including:

- Social, educational, cultural and recreational programs.
- Personal and professional development opportunities in leadership, volunteerism, employment, and organizational involvement.
- An environment and facilities which encourage student participation and interaction.
- Resources for students and advisors to assist in the establishment and maintenance of organizations.
- Staff assistance from all levels of the department, with personnel serving in the roles of advisors, mentors, models, trainers, colleagues and resource people.

The audiences of the programs, activities and services of the Office of Student Activities are also varied. Though faculty, staff and the community are groups which also benefit, this document will focus on students as the primary "targets" of Affective Development. Generalized categories of students affected by the department include:

- The student body as recipients of programs, activities and services.
- Student leaders and committee members involved with specific organizations.
- Student volunteers serving both on and off the campus.
- Student employees assigned to specific jobs in the facilities.

On the following pages each of the dimensions of Affective Development are listed along with specific responses representing the programs, activities and services of the office.

DIMENSION	RESPONSE
How students change their way of thinking from a dualistic, right/wrong perspective to a way of thinking that recognizes alternative perspectives to a view that we never have all the answers but commitments need to be made. How a student develops tolerance for differing opinions.	**PROGRAMS** - A variety of programs in scope, depth and nature fosters critical thinking and awareness of multicultural issues. Exposure to this broad range of programming is a contributing factor in the development of students as they progress from dualism to alternatives to commitment. Examples of programs which affect this development are the lecture series, cultural programs, performing arts and group interaction. **PERSONAL AND PROFESSIONAL DEVELOPMENT** - Specific activities which contribute to development in these dimensions include training in basic skills, organizational theory, the emerging and established leaders programs, presentations such as the Myers-Briggs Personality Test, and employment opportunities which encourage growth, maturation and flexibility. These types of activities are available for student leaders, members, volunteers and employees. **ENVIRONMENT** - The programs, activities and services of Student Activities and the Warren Campus Center are designed to maintain an atmosphere of diversity, exploration and shared ideas. In all areas, the intention is to create the perception of the Campus Center as "belonging" to students, to be used for a variety of purposes. This atmosphere should be a major factor in student development. **RESOURCES** - Access to written material, facilities, equipment and office space is important in terms of program success, individual development, and environment. The availability of these and other resources in the Campus Center contributes in both subtle and direct ways to student development. **STAFF** - The personnel in Student Activities complement development in this dimension in two manners. First, they are trained to recognize dualistic behavior and assist students in the identification of alternatives and, ultimately, for students to make decisions in the absence of absolute answers. Second, they are viewed as advisors, models and mentors each day by many students. The modeling of appropriate behavior indirectly affects student development.

DIMENSION	RESPONSE
How a student's moral development changes from a perspective that moral decisions are based on what is good for me, to what is good for the people around me, to what is just for the larger community.	**PROGRAMS** - Development of these dimensions continually takes place with at least two of the primary audiences involved with programming. Student programmers are developed to identify, create and present programming for the diverse needs of the campus community. In its simplest form, this activity broadens the group to think in terms of a wider constituency than the individual or the immediate group. Additionally, the presentation of programs helps to develop citizenship and involvement in the democratic process for recipients of the programs, facilitating ongoing dialogue and development.
How a student develops tolerance for differing opinions.	**PERSONAL AND PROFESSIONAL DEVELOPMENT** - Activities in the department have been created which directly impact on these dimensions. Examples are: establishment of the Center for Service Learning to facilitate volunteerism and involvement in the greater community; emerging and established leaders programs and other activities which focus on leadership and group responsibility; increasingly complex student employment and management responsibilities; opportunities for membership and affiliation in a wide range of organizations.
	ENVIRONMENT - The programs, activities and services of Student Activities and the Warren Campus Center are designed to foster the perception that the Center and surrounding facilities form a "community" in which students are involved and for which they share responsibility.
	RESOURCES - Some of the resources which facilitate understanding of responsibility and community include the student organization handbook, brochures and fliers, and policies and procedures. Appropriate development of students lead them to increased levels of tolerance and justice, even when this development is the result of reading a handbook.
	STAFF - The most important contribting factors regarding staff and these dimensions are, once again, the modeling of appropriate behavior, and the monitoring of student behavior.

DIMENSION	RESPONSE
How a student develops confidence in one's capabilities within the limitations of one's skills, talents, and experience. How a student develops positive self perceptions.	**PROGRAMS** - These areas of affective development are the most easily measured. Examples of programs which impact on the dimensions are: Training and development of basic and advanced skills for students involved in campus programming; administration of programs which focus on skills development; creation of programs which offer opportunities and experiences for a large number of students; coordination of programs which directly associate with academic programs and applied learning; involvement in successful programming; participation in programs which encourage and celebrate positive self perception. **PERSONAL AND PROFESSIONAL DEVELOPMENT** - Student leaders, members, volunteers and employees benefit from a number of specific activities including: Leadership programs; volunteer programs, employment; organizational involvement. Achievement by students at two levels: support in initial development and challenge in advanced development; recognition programs which publicly acknowledge achievement and development; self motivation and a sense of self-worth on the part of leaders, members, volunteers, employees, etc.; opportunities to meet increasingly higher expectations through advancement. **ENVIRONMENT** - The programs, activities and services of Student Activities are established to maintain an environment which provides opportunities for success, but which also accommodates failure as a learning experience (within reasonable limits), resulting in an application of "I'm O.K., You're O.K." Within this environment, students also develop responsibility, loyalty, and dedication to a larger community, fostering positive perceptions of self and others. **RESOURCES** - The maintenance and dissemination of resource materials which assist in skills development also indirectly affect self-perception. Examples include handbooks "Care Packages", workshops, "Nuts and Bolts", and referral to other on-campus resource agencies which affect or influence skills acquisiton and self-perceptions. **STAFF** - Staff in the Office of Student Activities are directly involved in the learning process of students. Serving as advisors, employers, and colleagues, the staff contribute to these dimensions through evaluation, supervision, training and reinforcement.

Office of Student Activities
Affective Development

DIMENSION	RESPONSE
How a student develops purpose in future plans.	**PROGRAMS** - This dimension represents the most advanced level of development on the part of students. Involvement in programs and activities is an extension of and complement to the learning process in the classroom. Students who have had the opportunity to utilize life skills and learning outside the classroom are better prepared to make decisions which affect their life choices. The philosophy of the Office of Student Activities maintains a belief in programming as essential to the process. **PERSONAL AND PROFESSIONAL DEVELOPMENT** - Activities which influence this dimension for student leaders, members, volunteers and employees include: Membership and organizational affiliation; development of self sufficiency, professionalism and applicable skills; understanding of human relations and the importance of accepting diversity and change; opportunities to experiment with future roles. **ENVIRONMENT** - Through the programs activities and services of Student Activity, students have the opportunity to acquire a cumulative cognisance of experience which influences and is applied to life choices. **RESOURCES** -Through publications and written materials, through involvement with professional organizations, and through attendance at conferences, seminars and workshops, students are presented with alternatives which explore values, trends, attitudes, and possibilities. These resources are maintained and made visible to assist sutdents in decision making. **STAFF** -As with all other dimensions, role modeling, mentoring and participation in training and development are ways in which the staff contribute to this dimension.

Office of Student Activities
Affective Development

DIMENSION	RESPONSE
How a student develops meaningful relationships with members of the same gender and members of the opposite gender.	**PROGRAMS** - Specific programs are designed to address the dimension. Additionally, awareness training, the use of non-sexist language, and the highly visible roles of males and females on the program board are examples of activities which promote fairness and meaningful relationships. **PERSONAL AND PROFESSIONAL DEVELOPMENT** - Unlimited opportunities for interaction between members of the same and opposite genders are available for student leaders, members, volunteers and employees. Specific training programs such as "Men and Women as Colleagues/Friends" are examples of activities designed to facilitate this dimension. **ENVIRONMENT** - The programs, activities and services of Student Activities are designed to preserve and foster on atmosphere in which males and females are recognized and accepted as equals, and in which appropriate behavior is rewarded. **RESOURCES** - Publications and other materials are maintained by the office to assist students and staff in addressing this dimesion. **STAFF** - Staff serve as role models and teachers in appropriate behavior, reinforcing students demonstrating development in this area.

DIMENSION	RESPONSE
How a student develops autonomy from family and peers.	**PROGRAMS** - Identity, personal growth and personal assessment are addressed in the selection, creation and presentation of specific programs. The college environment, although appropriate for developing autonomy from family, substitutes, peers in interdependence roles and functions. Programs help to develop self worth and integrity in the individual. **PERSONAL AND PROFESSIONAL DEVELOPMENT** - Many of the development activities of the department foster independence and self-identity for the student leader, member, volunteer or employee. Social independence comes through exposure to multiculturalism and increased levels of tolerance. Personal independence comes through involvement choices in organizations and opportunities for decision making. Familial independence comes through personal growth and maturation. Fiancial independence comes through increasing levels of responsibility in employment, and through increasing needs for financial self-managemtn. The activities of the department impact on these and other forms of emerging independence. **ENVIRONMENT** - In the final anaylsis, Student Activities fosters the creation of an environment in which students are free to "become themselves". **RESOURCES** - The maintenance of publication, facilities and equipment by the department are examples of resources which assist students in this dimension. **STAFF** - Staff in Student Activities are trained to recognize and acknowledge changes and growth in students which result in maturation, identity and the autonomy of emerging individuals.

APPENDIX D

Possible Outcomes Assessment Areas

From: F. Julian
Murray State University (Kentucky)

POSSIBLE OUTCOMES ASSESSMENT AREAS

STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT

Information about student understanding, competencies, and attitudes relative to bodies of facts and principles and use of their intellectual and physical abilities.

STUDENT EDUCATIONAL CAREER DEVELOPMENT

Information about student attitudes and success concerning certain academic pursuits (e.g., student educational degree aspirations and attainments).

STUDENT EDUCATIONAL SATISFACTION

Information that indicates the satisfaction of students about the knowledge and skills they have acquired and their progress toward their educational and occupational career objectives.

STUDENT OCCUPATIONAL CAREER DEVELOPMENT

Information about student attitudes and success concerning certain occupational goals and their job performance.

STUDENT PERSONAL DEVELOPMENT

Information about changes in students concerning the growth and maintenance of their personal live (e.g., their ability to adapt to new situations, their self-concept, etc.).

STUDENT SOCIAL/CULTURAL DEVELOPMENT

Information about student abilities and attitudes in dealing with people and their interest in cultural activities.

COMMUNITY EDUCATIONAL DEVELOPMENT

Information about the attitudes and success of nonmatriculating participants concerning their acquisition of knowledge and skills, personal and social development, and occupational career goals.

COMMUNITY SERVICE

Information about the impact of the opportunities and services provided by the institution and received by the community (e.g., agricultural extension services, cultural and recreational opportunities, etc.).

COMMUNITY IMPACT

Information about the impact of an institution's programs and its faculty, staff, and students (current and former) on the financial health, manpower supply, and attitudes of the community (local, state, or national).

DEVELOPMENT OF NEW KNOWLEDGE AND ART

Information about new knowledge and art forms created, applied, and reorganized as a result of an institution's programs and its faculty, staff, and students (current and former).

POSSIBLE OUTCOME MEASURES

Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).

Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.

Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.

Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.

Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech).

Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.

Student scores on tests that indicate their ability to read, write, speak, and/or listen.

Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).

Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.

Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).

Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.

Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.

Number and percentage of students surveyed who are taking non-credit, independent study, or special courses.

Number of awards and citations received per student and/or former student for their academic performance.

Number of students receiving a degree, diploma, or certificate within a certain time period.

Average amount of time it takes a student to earn a degree, diploma, or certificate.

Number of students graduating from the institution after a certain period of time as a percentage of their entering class.

Number and percentage of graduates for the year who transferred from another school.

Number and percentage of students leaving the institution prior to receiving a degree, diploma, or certificate during a particular academic term or year.

Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.

Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.

Student and/or former student scores on a scale measuring their perceptions of their educational achievement.

Student scores on a scale measuring their perception about the amount of learning that took place in certain activities sponsored by the institution outside of former instruction.

Student scores on a scale measuring their interest in continued self-initiated study and inquiry.

Number and percentage of former students surveyed who indicate that they would send their children to the same school.

Average amount of alumni gifts within a certain time period after graduation.

Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.

Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).

Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).

Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).

Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.

Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.

Number and percentage of former students (graduates and non-graduates) surveyed who were employed within a certain time period after leaving the institution.

Number and percentage of former students (graduates and non-graduates) surveyed who received the job of their first choice.

Average first salary of former students.

Distribution of former students (graduates and non-graduates) across income categories within a certain time period after leaving the institution.

Former students (graduates and non-graduates) scores on a scale measuring their degree of satisfaction with their job performance.

Number of professional occupation awards and citations received per former student surveyed.

Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.

Number of voluntary/involuntary changes in employment within a given time period per former student surveyed.

Number of voluntary/involuntary changes in career field within a given time period per former student surveyed.

Average first salary expectations of students.

Number and percentage of students surveyed who are aspiring to a particular type of occupational career.

Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.

Number and percentage of former students (graduates and non-graduates) surveyed accepting employment in their major field of study.

Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.

Number and percentage of students and/or former students surveyed who regularly who regularly attend religious services.

Students and/or former students' scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.

Students and/or former students' scores on a scale measuring their perceptions about their self-image.

Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.

Number of awards and citations earned per student and/or former student for social contributions.

Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.

Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.

Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.

Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).

Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.

Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.

Student and/or former student scores on a scale measuring their political attitudes and beliefs.

Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).

Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.

Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.

Student and/or former student scores on a scale measuring their current and desired social and economic level.

Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.

Number of students and/or former students having a personal library of well-known literary works, or pieces of art, as a percentage of all students and/or former students surveyed.

Appendix E

Advantages and Disadvantages of Quantitative
and Qualitative Approaches to Assessment of Personal Development
and the Quality of The Student Experience

Quantitative	Qualitative
Advantages:	Advantages:
Reliance on psychometric inquiry paradigm (objective measures)	Acknowledges multiple realities
Relatively inexpensive; a priori design results in greater efficiency	Sensitive to context-specific and participant relevant data; acknowledges institutional as well as individual student goals
Data amenable to computer driven analytic procedures	Provides rich, "thick" descriptions of students' experiences
Data amenable to intra- and interinstitutional comparisons across time (generalizability)	Serendipity is documented
	Responsive to emergent issues and pluralistic values/perspectives related to quality of student experience
Disadvantages:	Disadvantges:
Underemphasizes involvement or student effort	Labor-intensive, thus relatively expensive
Relatively insensitive to unintended effects or outcomes (serendipity)	Data not easily collated, analyzed, or compared within or across institutions
Results are oriented toward a single reality	Institutional resources and range of opportunities available to students are de-emphasized; focus is on a few rather than the entire student body
Diversity of student's experiences is masked	Results seem anecdotal, "subjective"; not "hard" evidence
Rely on student self-reports	

APPENDIX F

Data-Gathering Categories*

Open-ended Interview

In the active listening approach students are asked to discuss their college experiences and how they have benefited. The data collector explains that the discussion is intended to help faculty and staff understand how students have grown since coming to college and asks the student to present his or her views. Only probing and clarifying questions are asked, and the discussion is recorded on audio-tape or in detailed notes.

Structured Interview

In a structured interview specific questions are asked of all respondents. Ususally the interview has an approximate fixed length; the data collector works from a list of questions and may or may not share them with the student. The questions are presented in sequence; probing questions are often anticipated on the interview protocol sheet. If a student strays from the question, that information may be disregarded. If the questions are not relevant to a particular student, they can be modified to a limited extent. Data is usually recorded on a form; interviews may be audio-taped as a secondary source of information.

Questionnaire

The questionnaire can be student centered or institution-centered depending on its approach. It may include questions that address personal development directly such as: "To what degree are you able to make decisions without the advice of your parents or friends?", "How have you changed since coming to college?". In the latter case the information-seeking question may be followed by another open-ended question, such as "Please elaborate." This may require a forced choice response (selection of one response from four or five options).

The questionnaire is used to probe information, opinions, or attitudes. Because it is a paper-pencil technique, its instructions are usually contained on the form; little guidance or encouragement is given for expanding the instrument. It can be administered individually or in large groups, through the mail or in person.

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* A modified version of materials prepared by Martha Williams, the NETWORK, Andover, MA., for the 1978 National Dissemination Forum which also appeared in Designing a Problem - Focused Needs Assessment (Kuh, Hutson, Orbaugh and Byers, 1979).

Checklist

A checklist, like a questionnaire and structured interview, can contain items indirectly related to personal development, student satisfaction, and involvement or items directly related to these concepts. The student is required to select from a fairly wide group of possibilities. The choices are usually not limited to two; several responses can be checked, and often the responses are to be ranked. Checklists can be used to codify existing data (information routinely collected such as number of memberships in organizations, leadership responsibilities, etc.) Pace (1980) has developed an excellent instrument for this purpose.

Observation

Assessors who use observations work at the site of an activity and record within coded or structured data collection formats what they see and hear. This approach requires the observer to adopt a perspective from which members' reality can be interpreted. Because of the lack of interaction between observer and member, the perspective is not biased or influenced by the students.

Additional Suggestions

In selecting a particular type or instrument, the dynamics of using the instrument should be considered. If, for example, interviews and questionnaires are used, the assessment team may wish to consider the following:

Interviews

Require time from both students and interviewers;

Require scheduling of appointments at mutually agreed upon times and places;

Provide opportunity for clarification of questions and responses with members;

Provide a detailed look at students' experiences and concerns.

Questionnaires

Require initial data collector time in developing or adapting a questionnaire for local use;

Can be self-administered by students at their convenience but may not be returned:

Provide summary information in readily quantifiable form.

Observation

Use observation techniques when:

1. First-hand experience is required;
2. Respondents may not be able tc provide required information;
3. The data collection plan can afford (financial and human resources) the time required for lengthy observations.

Major Steps:

1. Determine the observation format includings:
   a. Extent to which observation guide is structured pror to observations.
   b. Extent to which observer is or is not a participant in the activity being observed.
   c. Extent to which the activity to be observed is natural or contrived.
   d. Extent to which students are aware of observer's role and purpose
2. Identify site or observational situation.
3. Gain access or permission to observe - establish an agreement.
4. Take overt or covert role of observer.
5. Establish trust and rapport (may not be necessary if observation is unobtrusive).
6. Record observations using one or more of the following:
   a. Predetermined schedule or check list;
   b. Notetaking in narrative form;
   c. Tape record observations as they occur.
7. Analyze observations through focusing and categorizing process.
8. Write report summarizing observations.

For further information about observational techniques:

Bogdan, R., & Taylor, S.J. (1975). Introduction to qualitative research methods. New York: Wiley.

Jahoda, M., Deutsch, M., & Cook, S.W. (1951). Research methods in social relations. New York: Dryden.

Lindon, Y.S., & Guba, E. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage.

McCall, J., & Simmons, J.L. (1969). Issues in participant observation. Reading, MA: Addison-Wesley.

Use a survey questionnaire when:

1. Wide distribution is necessary (and resources will not permit telephone interview);
2. A sense of privacy is needed;
3. Complete uniformity in the manner in which questions are posed is necessary to avoid biasing responses;
4. Presence of interviewers are likely to affect responses;
5. Students need time to secure or check the required information;
6. Obtaining unanticipated definitions of situations and quantifiable responses is not desired;
7. Self-administration and logistical ease is desired;
8. Cost must be kept to a minumum.

Major Steps:

1. Specify information to be gathered.
2. Frame required questions according to the following criteria:
   a. Clear and understandable;
   b. Logical sequence;
   c. Spacing and clear response format;
   d. Pretest questionnaire and modify if needed.
3. Determine to whom and how questionnaires will be distributed and how a high-return rate can be realized.
   a. Distribute and collect at a student residences, club meetings, at registration, through the mail, etc.
   b. Self-addressed campus or stamped envelope for return.
4. Compile results of questionnaire and summarize.

For further information about questionnaire and survey techniques:

Berdie, D.R., & Anderson, J.F. (1974). Questionnaires: Design and use. Metuchen, N.J.: Scarecrow.

Hyman, H. (1954). The interview in social research. Chicago: University of Chicago Press.

Oppenheim, A. (1966). Questionnaire design and attitude measurement. New York: Basic Books.

Interviews

Use interviews when:

1. It is necessary to observe not only what students say, but how (e.g., evasive, reluctant);

2. It is necessary to build up and maintain rapport to keep students interested and motivated to finish questions;

3. High participation rate is needed;

4. Supplemental information may be needed for respondent's understanding and to prevent misinterpretation of the questions;

5. Resources will allow for expense of this method;

6. It is necessary for respondent to react to visual materials;

7. Spontaneous reactions are necessary with sufficient time and probes to recall relevant information;

8. Information about students' personal characteristics and environment is needed to interpret results and evaluate the representativeness of the persons surveyed;

9. Time and resources permit proper training and supervision of interviewers (otherwise inaccurate or incomplete data may be recorded).

Major Steps:

1. Specify focus of interview (e.g., personal development, effort, satisfaction) and students' characteristics.

2. Establish time-frame and identify interviewers.

3. Develop questions to be included in interview.

   a. Motivation/incentive for students to participate;

   b. Give students an opportunity to influence policy or procedures through the interview;

   c. Be prepared for interview;

   d. Establish rapport;

   e. Record responses using students' own words;

   f. Be prepared to probe for clarification, amplication, etc.;

g. Summarize major points with the member at the end of the interview as validity check.

4. Analyze and evaluate each interview as soon as it is completed.

5. Compile information from series of interviews into categories of responses and prepare a summary.

For further information on interviewing techniques:

Banaka, W. H. (1973). Training in depth interviewing. New York: Harper & Row.

Bingham, W., & Moore, B. (1959). How to interview. New York: Harper.

Dobbert, M.L. (1984). Ethnographic research: Theory and application for modern schools and societies. New York: Praeger.

Gordon, R. (1969). Interviewing strategies, techniques and tactics. Homewood, IL: Dorsy.

Holsti, D.R. (1969). Content analysis for the social sciences and humanities. Reading, PA: Addison - Wesley.

Lincoln, Y.S., & Guba, E. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage.

Loflan, J. (1971). Analyzing social settings. Belmont, CA: Wadsworth.

Merton, R., Fisk, M. & Kendall, P. (1956). The focused interview: A manual of problems and procedures. Glencoe, IL: Free Press.

Miles, M.B., & Huberman, A.M. (1984). Qualitative data analysis: A sourcebook of new methods. Beverly Hills, CA: Sage.

Richardson, S.A., Dohrenwend, B., & Klein, D. (1965). Interviewing: Its forms and functions. New York: Basic Books.

Yin, R.K. (1984). Case study research: Design and methods. Beverly Hills, CA: Sage.

Existing Documents

Use existing documents when:

1. Appropriate records are easily and legally accessible;
2. Resources limit the use of more expensive data-gathering methods;
3. Time and space restrictions do not permit direct access to students;
4. Naturally occurring data from the setting are desired as opposed to more contrived data from interviews, questionnaires, etc. ("Let the record speak for itself.");
5. Information is needed to supplement and substantiate information obtained through interviews and other methods;
6. Potential errors in records can be recognized and corrected through other assessment techniques;
7. Comparisons across record-keeping systems are feasible (similar formats, language, type of information);
8. Repeated measures of values, attitudes, participation rates, etc. are desired over time.

Major Steps:

1. Determine data desired from records;
2. Determine appropriate sources of data (random stratified or purposive sample of available documents in preferable);
3. Contact persons in charge of appropriate records and gain access to records.
4. Review records for desired information using document analysis techniques (more than one judge is desirable for subsets of documents);
5. Summarize information obtained from each record or document with attention given to issues of completeness and accuracy;
6. Collapse information across records using emergent categories to gain a more general picture.

Possible sources of archival material include, but are not limited to:

1) Official reports and documents

Academic transcripts;
Judicial system reports;
Student activities staff reports;
Minutes of student government and other organizations;
Greek adviser reports on particular programs;
Campus security reports.

2) Unofficial and personal records

Student diaries
Articles in student newspaper.

For further information about archival material, consult:

Anderson, D., & Benjaminson, P. (1976). Investigative reporting. Bloomington, IN: Indiana University Press.

Guba, E. (1978). Toward a methodology of naturalisitic inquiry for educational evaluation, CSE Monograph Series No. 8, Los Angeles, CA: UCLA Center for the Study of Evaluation.

Holsti, O.R. (1969). Content analysis for the social sciences and humanities. Reading, MA: Addison Wesley.

Lincoln, Y.S. & Guba, E. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage.

Williams, P.N. (1978). Investigative reporting and editing. Englewood Cliffs, New Jersey: Prentice Hall.