Student development along three cognitive and three psychosocial dimensions was studied at the University of Iowa. Six instruments were administered to students during their freshman and senior years. Attention was directed to moral development, ego development, and conceptual level, as well as freeing interpersonal relationships, establishing identity, and developing purpose. Each of the three measures of cognitive development showed significant increases in the seniors' scores over their freshman scores. No consistent pattern of college experiences was found to be related to growth on the cognitive measures. For the interpersonal measures, scores showed students' developed increased tolerance and acceptance of differences among individuals and also increased their capacity for mature and intimate relationships, along with growth in confidence and sexual identity. Study results indicate that participation in various types of extracurricular activities such as those provided by college unions is related to growth in certain psychosocial areas of development. Intervention strategies that deal with students' psychosocial needs and increased emphasis on the cultural, recreational, and social development in college union programming are recommended. (SW)
Student development: Does participation affect growth?

Albert B. Hood

A

n almost universal characteristic of highly educated professionals is their constant search for greater meaning and significance in their work. Those of us who work in higher education settings practicing our specialties in such areas as student activities, student programming, student advising, and other student service agencies are no exception. In fact, we probably experience greater hunger for meaning in our work because our roles are often more meaningful than those of our academic colleagues (Rodgers, 1980). In addition, we often have so much to do that we do not take the time to reflect on our work.

The concept of student development has resulted from much-needed efforts to reconceptualize the work of student service professionals in higher education. Student development is a term that focuses on one of the major purposes of higher education and emphasizes the ways in which professionals in the student services field contribute to the development of people through higher education. For many student service professionals, however, the concept is often vague one because it is often difficult to put into practice the concepts of student development theories on a day-to-day basis. In addition, there are a number of different theories and no one theory or set of theories provides a specific comprehensive model for student service professionals.

Research on how college students change from their freshman to senior years can contribute to the understanding of the nature and causes of the development that occurs in students as a result of their college experiences. With this improved understanding, curricula and instruction, as well as student activities and programs, can be initiated or revised to be of maximum benefit to students.

To attempt to better understand the changes that take place during the college years, six instruments designed to assess development on four different developmental theories were administered first to freshmen and then to these same students as seniors at the University of Iowa.

Cognitive development theories

One set of developmental theories generally deals with the cognitive development of college students. Certain types of cognitive learning that take place in college are universally recognized and understood. These include gaining increased verbal and quantitative skills as well as gaining substantive knowledge. Other types of cognitive learning are less well understood and often thought to be indirect. These include rationality, which is the ability to think logically on the basis of useful assumptions and the disposition to weigh evidence, to evaluate facts and ideas, and to think independently; and intellectual integrity, the development of a valid and internalized but not dogmatic set of values and moral principles including a sense of conscientiousness and social responsibility. Cognitive theorists generally employ the structuralistic view articulated by Piaget (1965). The process of developmental change is seen as interactive; individuals encounter problems, dilemmas, or ideas which cause cognitive conflict demanding accommodation or changes in their ways of thinking (Knefelkamp, Widick, & Parker, 1978).

Kohlberg (1971) has developed a developmental theory of moral reasoning built on Piaget's ideas. Kohlberg has delineated stages of moral growth ranging from the obedience and punishment orientation of children through an adult level of moral reasoning based on one's own conscience and moral principles. Rest (1974) developed a paper and pencil instrument, the Developing Issues Test, based on Kohlberg's stage conception. In this test, six hypothetical moral dilemmas are presented and the respondent must recognize and select his or her preferred way of thinking from an array of different samples of thinking.

Another cognitive theorist is Loevinger (1976), who is well-known for her work on the conceptualization of the process of ego development and for her construction of the Sentence Completion Test, a projective instrument to assess ego development. She describes ego development as the striving for self-consistency, the search for meaning, and the integration of experience.

Hunt (1971), a third developmental theorist, developed the construct of conceptual levels, which describes the normal development of an individual interacting with his or her environment. Individuals at a low conceptual level need a highly-structured environment that provides absolute rules. These individuals have fixed or rigid ways of relating to environmental stimuli. Individuals operating at a higher or more abstract conceptual level are capable of attending to a larger variety of stimuli and can organize their consideration of the environment in more ways. Hunt developed the Paragraph Completion Method, a semi-projective measure
"How students think about particular issues and how the environment and activities of the union challenge or support thinking would be of particular interest to union and student activities staff."

Psychosocial theories
Another set of developmental theories describes the various developmental tasks that individuals face and resolve either adequately or inadequately at various stages in their lives. These theories deal with the feelings, concerns, behavior, and preoccupations at different life stages. Psychosocial theorists typically base their work upon that of Erikson (1959), who described a series of developmental phases through which an individual moves during the life cycle. Each developmental phase is created by the convergence of a particular growth phase with certain tasks. These tasks are defined as learning certain attitudes, forming particular facets of the self, and learning specific skills which must be mastered if one is to manage that particular life phase successfully. Development follows a chronological sequence, and at certain times of life particular facets of the personality emerge as specific concerns which must be addressed.

Psychosocial theories include those of Sanford (1962) based on psychoanalytic theory, Heath's (1968) maturation model, and Chickering's (1969) vector model of student development. Chickering's model lists seven vectors along which development occurs in college students: (1) developing confidence, (2) managing emotions, (3) developing autonomy, (4) establishing identity, (5) freeing interpersonal relationships, (6) developing purpose, and (7) developing integrity.

This study examines the development that occurs in college on three of these vectors—the freeing interpersonal relationships, establishing identity, and developing purpose—utilizing three instruments designed specifically to assess this growth.

Chickering's vector of establishing identity includes two aspects: conceptions concerning body and appearance and the clarification of sexual identity. Erwin (1978) developed his Ego Identity Scale to assess development on this vector and added a third component—that of personal confidence. The Erwin Identity Scale consists of 58 items divided among three subscales, each measuring one of the three components.

The vector of freeing interpersonal relationships, according to Chickering, consists of two aspects: (1) increased tolerance and respect for people of different backgrounds, values, and lifestyles, and (2) a shift in the quality of relationships with close friends and intimates. This shift in quality of relationships with friends refers to moving from dependence through independence toward an interdependence, which allows the individual more freedom of movement and behavior. Mines (Note 1) developed the Mines-Jensen Interpersonal Relationship Inventory to assess this vector. It consists of 42 items and contains two subscales, those of tolerance level and quality of relationships.

Chickering's vector of developing purpose includes three distinct areas of behavior in which students are expected to change: (1) avocational and recreational interests, (2) vocational plans and aspirations, and (3) lifestyle considerations. Barratt (Note 2) constructed the Developing Purposes Inventory containing three...
separate subscales, each composed of 15 items measuring avocational/recreational interests, vocational interests, and style of life.

From the psychosocial viewpoint, the union and student activities staff would be interested in the age of the student, the decisions and needs of primary concern, and the skills and attitudes which must be developed before the student can become confident in coping with various tasks.

Procedure
This study attempts to assess the development of college students along three cognitive and three psychosocial dimensions. The study was initiated by administering six different instruments on a random basis—one to every sixth freshman during the two-day summer orientation attended by entering students in 1977. Three of the instruments dealt with cognitive theories: the Developing Issues Test (Rest, 1974), the Paragraph Completion Method (Hunt, 1971), and the Sentence Completion Test (Loevinger, 1976). The other three instruments dealt with psychosocial theories: the Erwin Identity Scale (Erwin, 1978), the Mines-Jensen Interpersonal Relationships Inventory (Mines, Note 1), and the Developing Purposes Inventory (Barratt, Note 2). Between 100 and 180 freshmen completed each instrument so that a total number of approximately 1,000 entering freshmen participated. The instruments were then scored yielding number of approximately 1,000 entering freshmen. Scores on Hunt's Paragraph Completion Test indicated that these students underwent significant changes in ego development during their undergraduate years.

Four years later, in the spring of 1981—during what would be the second semester of their senior year—all students in the original sample who still remained on campus were asked to retake whatever instrument they had completed as freshmen. Testing centers were set up in the heavily traveled campus buildings, and a variety of techniques were used to encourage participation. After several follow-up letters, phone calls, and even some canvassing of the students' residences, an eventual participation rate was obtained which ranged from 60 to 80 percent, depending upon the particular instrument. The seniors were also asked to complete a questionnaire which included demographic items as well as items dealing with their curricular commitments, experiences, and activities during their college years.

Results
Each of the three measures of cognitive development showed significant increases in the seniors' scores as compared with the scores of the same students received as freshmen. Scores on Hunt's Paragraph Completion Method showed a substantial increase of approximately a half a conceptual level stage by the end of the senior year. A significant increase in the moral development level was indicated by scores from Rest's Developing Issues Test, and scores of Loevinger's Sentence Completion Test indicated that these students underwent significant changes in ego development during their undergraduate years.

Growth on each of these three instruments was then examined in relation to various undergraduate experiences such as college major, overseas travel, type of residence, work experience, participation in various campus activities, and plans and commitments for postcollege years. No consistent pattern of college experiences was found to be related to growth on any of these cognitive measures. Substantial cognitive development took place, but it was not possible to relate this growth to any particular aspects of undergraduate life.

In examining psychosocial development, significant growth was found both on the Erwin Identity Scale and the Mines-Jensen Interpersonal Relationships Inventory. The instrument measuring the third Chickering vector, Barratt's Developing Purposes Inventory, was found to contain a number of weaknesses; therefore, results on that vector must await the construction of a revised and improved scale.

For interpersonal relationships, scores on both the tolerance and quality of relationships subscales showed significant increases during the four-year period. Students developed increased tolerance and acceptance of differences among individuals and also increased their capacity for mature and intimate relationships. They became more able to perceive others, to listen to them, and to understand different views without the need to dominate or pass judgment.

When growth on these subscales was examined in relation to specific college experiences, few trends were found. The exception was on the quality of relationships subscale and students' participation in campus organizations and recreational activities. Each of these types of experiences showed no relationship to the scores on this subscale when students were tested as freshmen but showed significant relationships with their senior year scores (Table 1).

Similar results were found for the vector of establishing identity as measured by the Erwin Identity Scale. Seniors showed considerable growth on two of the subscales of this instrument—confidence and sexual identity. Few relationships were found between various college experiences and growth on these subscales. Again, the exception was with the confidence subscale and its relationship to participation in campus organizations. There were no differences between participants and nonparticipants on the confidence subscale as entering freshmen, while as seniors those who had participated

<table>
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<td>Confidence</td>
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<tr>
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<td>.29*</td>
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<tr>
<td>Recreational activities</td>
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<td>.38**</td>
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* = Significant at .05 level  ** = Significant at .01 level

TABLE 1
Correlations between amount of participation in activities and confidence and quality of relationship scores
actively or who had held leadership roles in these activities indicated significantly higher levels of self-confidence. These students obtained more positive and more self-reliant images of themselves and felt more confident about expressing beliefs and decisions (Tables 1 and 2).

The results of this study indicate that participation in various types of extracurricular activities such as those provided by college unions is related to growth in certain psychosocial areas of development. The results offer empirical support for the statements of union professionals (e.g., Butts, 1971) emphasizing the value of providing such activities on campus and encouraging participation in them. A substantial proportion of entering freshmen on the typical campus expresses a strong need to grow in the areas of self-confidence and interpersonal relationships, and those who have contact with such students—resident assistants, activities advisers, academic advisers, and union personnel—should encourage such active participation.

The concept of student development involves an increased emphasis on the cultural, recreational, and social development within college unions. This concept also emphasizes developmental programming activities designed to teach students the skills needed for maximum use of their environment and suggests increased emphasis on intervention strategies that deal with students' psychosocial needs. The findings of this longitudinal study indicate that participation in union programs and activities, as well as in other types of extracurricular activities, students not only develop increased tolerance and acceptance of differences among individuals, but they also increase their self-confidence and their capacity for mature, interpersonal relationships.

**References**


