

## STUDENT DEVELOPMENT

## 2.1 INTRODUCTION

**Development** is defined by Plug, Meyer, Louw and Gouws (1979) as a series of continuous changes in an organism or a group of organisms such as a social group. The development of an organism begins at conception and ends at death. It accompanies maturation and growth and is influenced by the genetic composition of the organism, external physical factors and social factors. Learning plays an important role in conjunction with the last two factors.

Developmental psychologists seek the commonalities of change across individuals in order to describe and anticipate changes occurring in all persons and the sequences in which the changes take place. Development is seen by some to be discontinuous and occurring in stages. Others see behaviour as continuous, progressing in smooth, if uneven, development. Another question is whether the stimulus for change is primarily internal or external to the person. "Stage" theories emphasize inborn or biological characteristics of persons, whereas "task" theories emphasize characteristics of the environment (physical or social) that require different ways of coping. (Parker, 1978).

Sanford (1967) described development as the process of an individual's growth in a way that allows him to become increasingly complex. He recognized individual differences in development stating that individuals grow and develop at rates that are unique to their personality and experience.

The literature on **student development** provides a predominantly American perspective. In this context higher education institutions are seen to have had a long history of involvement with the development of students stretching back for three centuries. Initially the focus was religious and the aim was to instill Christian values. It was only in the twentieth century that secular influences through the development of psychology, in particular the fields of cognitive and developmental psychology, informed thinking on student development (Parker, 1978). Nevitt Sanford's writings

in the 1960s are regarded as a landmark heralding the current orientation toward student development. He consistently developed the thesis that "*institutions of higher education should have as their primary goal the individual development of each student enrolled*" (Parker, 1978, p.7). Sanford proposed that student development was a continuous process of differentiation and integration and that the process took place through the interaction between student and the collegiate environment (Sanford, 1962). He argued that student development required an environment that both challenged and supported individuals in a balanced way (Sanford, 1967). Too much challenge is overwhelming; too much support is debilitating. Growth and change occur when the student achieves equilibrium in response to challenge, and the degree of support available to the student in the college environment will contribute to his success. Sanford's writings were followed by Arthur Chickering's *Education and Identity* in 1969 and a host of other theories and models of student development (see 2.2).

Currently it is believed that student development should address the academic or intellectual development of students, as well as their personal and career development. This can be done through (a) instruction which includes the curriculum and teaching and assessment strategies, (b) the provision of support services such as tutoring, mentoring and student counselling services, and (c) through environmental management such as providing residential and study facilities; providing extra-curricula activities; liaison between student bodies, faculty and administrators, and so forth.

Student development should also be sensitive to the increasing diversity of the student body. In the 1960s research was carried out on, and student developmental theories were based on, adolescent or young adult, white, upper-middle-class, male student populations. Over the years the profile of the student body has changed to include women, black and non-traditional adult and part-time students (Stage, 1991).

Over the past three decades a growing body of literature in higher education has dealt with changes students undergo, factors influencing those changes and student success, and the development of student development theories (Gardner & Jewler, 1989; Parker, 1978; Pascarella & Terenzini, 1991; Upcraft & Gardner, 1989).

## 2.2 STUDENT DEVELOPMENT THEORIES

The original student development theory was *in loco parentis* where the educational institution acted on behalf of parents for their children. It was believed that the development of students' character in general, and Christian moral character in particular, were far more important than the development of their intellect (Upcraft & Moore, 1990). This attitude prevailed for many centuries until it was challenged in the mid-twentieth century by a combination of developing psychological and sociological theories, as well as student activism, and was replaced by the more recent thinking on student development (Upcraft, 1989). Theories of student development developed and researched in the 1960s focused on white American males between 18 and 20 years of age (Stage, 1991). Females, non-white students, minority groups and adult learners were either under-represented or left out altogether. Awareness of these inadequacies and gaps in the theories grew in the 1980s and are now being addressed (Chickering & Reisser, 1993; McEwen *et al.*, 1990; Sue & Sue, 1990; Upcraft & Gardner, 1989; Upcraft & Moore, 1990). Chickering and Reisser (1993) noted that although recent research may indicate variations in style and sequence, the fundamental themes reappear. While a large number of theories have been developed since the late 1960s and early 1970s, the theories of Chickering, Kohlberg and Perry have probably had the greatest influence on the study of the effect of college or higher education on students and on institution policies and programmes designed to promote student development (Pascarella & Terenzini, 1991). Currently the most widely used student development theories can be classified into four major families (Chickering & Reisser, 1993; Stage, 1991).

### 2.2.1 Psychosocial theories

These theories view development as a series of developmental tasks or stages and focus on the content or the developmental tasks the student is dealing with. Chickering and Reisser (1993) listed the following as examples of psychosocial theories: Erikson's eight developmental crises; Chickering's seven vectors of development; Marcia's model of ego identity status; Cross's model of black identity formation; Heath's maturity model; Josselson's pathways to identity development in women; and life-span theories of adult development represented by such authors as Chickering and Havighurst, Gould, Levinson, Neugarten, Sheehy, Vaillant, and Knox.



Upcraft and Moore (1990) cited Tinto's theory of stages of freshman integration into college life as an example of a psychosocial theory of student development.

Chickering's vectors of development are probably the most widely known and used theory of student development (Upcraft, 1989). His revised 1993 model of seven vectors of student development is described in more detail as an example of a psychosocial theory of student development (Chickering & Reisser, 1993). The model is not intended to be rigidly sequential. Movement along a vector can occur at different rates and can interact with movement on other vectors. Chickering likened the vectors to major highways toward individuation. Although each person may drive differently, with different vehicles, all will move along the major routes. The vectors are intended to help determine where students are and in which direction they are heading developmentally. Whereas the vector *Establishing Identity* is probably more relevant to adolescents and young adults, Chickering saw the vectors as relevant for students of all ages, gender and from diverse backgrounds. The seven vectors and their general developmental directions are given in Table 2.1 (Chickering & Reisser, 1993, pp. 38-39) on the following page.

Chickering stated that higher education institutions can have significant impact on student development along the above vectors through institutional objectives, institutional size, student-faculty relationships, curriculum, teaching, student friendships and student communities, and student development programmes and services (Chickering & Reisser, 1993).

Chickering's vectors provide useful guidelines for the development, implementation and evaluation of student affairs functions and programmes (Hurst, 1978).

TABLE 2.1 CHICKERING'S SEVEN VECTORS: GENERAL DEVELOPMENTAL

<b>DIRECTIONS</b>	
<b>From</b>	<b>To</b>
<b>Developing Competence</b>	
Low level of competence (intellectual, physical, interpersonal)	High level of competence in each area
Lack of confidence in one's abilities	Strong sense of competence
<b>Managing Emotions</b>	
Little control over disruptive emotions (fear and anxiety, anger leading to aggression, depression, guilt, and shame, and dysfunctional sexual or romantic attraction)	Flexible control and appropriate expression
Little awareness of feelings	Increasing awareness and acceptance of emotions
Inability to integrate feelings with actions	Ability to integrate feelings with responsible action
<b>Moving Through Autonomy Toward Interdependence</b>	
Emotional dependence	Freedom from continual and pressing needs for reassurance
Poor self-direction or ability to solve problems; little freedom or confidence to be mobile	Instrumental independence (inner direction, persistence and mobility)
Independence	Recognition and acceptance of the importance of interdependence
<b>Developing Mature Interpersonal Relationships</b>	
Lack of awareness of differences; intolerance of differences	Tolerance and appreciation of differences
Nonexistent, short-term, or unhealthy intimate relationships	Capacity for intimacy which is enduring and nurturing

**Establishing Identity**

Discomfort with body and appearance	Comfort with body and appearance
Discomfort with gender and sexual orientation	Comfort with gender and sexual orientation
Lack of clarity about heritage and social/cultural roots of identity	Sense of self in a social, historical and cultural context
Confusion about "who I am" and experimentation with roles and lifestyles	Clarification of self-concept through roles and lifestyle
Lack of clarity about others' evaluation	Sense of self in response to feedback from valued others
Dissatisfaction with self	Self-acceptance and self-esteem
Unstable, fragmented personality	Personal stability and integration

**Developing Purpose**

Unclear vocational goals	Clear vocational goals
Shallow, scattered personal interests	More sustained, focused, rewarding activities
Few meaningful interpersonal commitments	Strong interpersonal and family commitments

**Developing Integrity**

Dualistic thinking and rigid beliefs	Humanizing values
Unclear or untested personal values and beliefs	Personalizing (clarifying and affirming) values while respecting others' beliefs
Self-interest	Social responsibility
Discrepancies between values and actions	Congruence and authenticity



### 2.2.2 Cognitive-structural theories

These theories describe changes in thinking and the developing frames of reference that students use to structure their values, beliefs and assumptions. Chickering and Reisser (1993) listed the following as examples of cognitive theories: Perry's scheme of intellectual and ethical development; Kohlberg's theory of moral development; Gilligan's "different voice" model; Belenky, Clinchy, Goldberger and Tarule's women's ways of knowing; Magolda's epistemological reflection model; Loevinger's theory of ego development; Kegan's evolving self; Fowler's stages of spiritual development; and Kitchener and King's reflective judgment model.

To illustrate the current trend of adapting and augmenting existing theories developed mainly for males to include other diverse groups' needs and characteristics the work of Belenky, Clinchy, Goldberger and Tarule (1986) will be briefly described. These authors noted that women often felt alienated in the academic environment, doubted their intellectual competence and set greater store in learning through relationships, life crises and community involvement. They interviewed women about their experiences as learners and described five perspectives of cognitive development which parallel Perry's model which they see as male based. The five perspectives are not seen as stages but as positions women take as they advance their cognitive development. The first position is **silence** in which women are powerless and rely on others for their sense of well-being. As they have relatively under-developed representational thought the ways of knowing available to them are limited to the present, the actual, the specific and to behaviours actually enacted. The second perspective is **received knowledge** and is similar to Perry's dualistic positions. Women rely on the knowledge of others and learn through listening to "those who know". Women characterized by the third perspective **subjective knowledge** move from silence and passivity to responding to "*the inner voice*" (p. 52) which challenges knowledge as absolute and authorities as infallible. This represents a move toward greater autonomy and independence. The predominant learning mode is one of inward listening and watching. Intuition is valued above objectivity. Women shape and direct their own lives and begin to choose self over others. Whereas women in the position of received knowledge derived their self-concept through definitions others supply and roles they fill, women in the position of subjective knowledge often felt insecure and did not have an integrated, enduring self-concept due to their shift away

from the familiar contexts and relationships of the received knowledge position. For women autonomy often means a break with past relationships and negative self-images to move to nurturing relationships and empowering self-images. Such separation and individuation can leave women feeling vulnerable and unconnected. In the fourth perspective **procedural knowledge** women begin to replace subjectivism and absolutism with reasoned reflection. The authors suggested that the development of procedural knowledge requires formal instruction or at least the presence of knowledgeable people who can serve as informal tutors. Women engage in the process of acquiring and applying procedures for obtaining and communicating knowledge. They apply different ways of looking at the world to generate a variety of perspectives. Procedural knowledge is more complex and more objective than subjective knowledge and procedural knowers are practical, pragmatic problem solvers. Two styles or voices of procedural knowledge were identified: separate knowing which represents the more familiar academic approach where truth is established through an impersonal, analytical approach and connected knowing where truth is gained through experience and relationships with others. The two voices of separate and connected knowing come together in the fifth perspective **constructed knowledge** where the integration of objective and subjective information, knowledge learnt from others as opposed to own reason and intuition, takes place. *"The capacity for speaking with and listening to others while simultaneously speaking with and listening to the self is an achievement that allows a conversation to open between constructivists and the world"* (Belenky et al., 1986, p. 145).

### 2.2.3 Person-environment interaction theories

These theories focus on how the environment influences behaviour through interaction with characteristics of the individual. Chickering and Reisser (1993) listed the following as examples of person-environment interaction theories: campus ecology theories of Barker, and Banning and Kaiser; Holland's theory of vocational personalities and work environments; and perceptual models of Moos, Stern and Pervin. Holland's theory is described in Chapter 3.

### 2.2.4 Typology theories

These theories describe distinctive but stable differences in learning style, personality



type, temperament or socioeconomic background as contexts for development. Chickering and Reisser (1993) listed the following as examples of typology theories: Witkin's cognitive styles; Kolb's learning styles; the Myers-Briggs typology; Keirsey and Bate's temperaments; and Cross's work on sociodemographic characteristics. Kolb's theory of experiential learning and learning styles is described in Chapter 4.

## **2.3 FACTORS AFFECTING STUDENT DEVELOPMENT**

### **2.3.1 Academic development**

Chickering and Reisser (1993) stated that research shows that clear and consistent institutional objectives make significant contributions to student development. They facilitate internally consistent policies, programmes and practices. When faculty and students take the objectives seriously they pervade all aspects of the institution such as academic and non-academic expectations and requirements, student-faculty relationships and admissions criteria. Usually only small institutions achieve clear and consistent objectives as the diversity of larger institutions makes the formulation of clear-cut objectives for student learning and development virtually impossible. Pascarella and Terenzini (1991) suggested that to enhance the impact of institutions of higher learning their policies and programmatic efforts should be broadly conceived and diverse, as well as consistent and integrated. A university campus environment should not be seen as unitary and global, but rather as an amalgam of diverse subenvironments. While the impact of a single subenvironment may be small the cumulative effect, if the environments are supportive, could be large.

Social involvement or social integration during college is a major determinant of persistence and degree attainment (Pascarella & Terenzini, 1991). Research evidence suggests that large numbers of students result in decreased student involvement, participation and integration. Possible student isolation and anonymity needs to be countered by involving students within smaller groups of individuals both academically and socially (Pascarella & Terenzini, 1991). Levitz and Noel (1989) advocated that every first-year student should feel attached to at least one person at the institution. Research has shown quality and frequency of student-faculty contact to be key variables in student development (Chickering & Reisser, 1993). Institutional size is negatively associated with amount of student-faculty non-classroom contact.

Persistence and retention are highest when students have a strong sense of involvement and of belonging, have frequent informal contacts with faculty and experience the institution and its staff as caring. Schlossberg, Lynch and Chickering (1989) proposed a mattering/marginality theory. Students who believe that they matter and that others (faculty, peers and family) care about them will develop a sense of belonging. A minority group, such as african students in a white institution, are most vulnerable to feelings of marginality.

The curriculum and teaching and assessment strategies have a major impact on academic development. Research by Klemp (1977) found that effective performance in the world of work was not related to the amount of knowledge acquired in a content area, but to cognitive skills, interpersonal skills and motivational characteristics. These kinds of competencies can be fostered through a wide range of content areas and need to be addressed through the curriculum and teaching practice. Four guidelines for selecting content for the curriculum proposed by Chickering and Reisser (1993) follow and seven principles for good teaching practice are given in the next paragraph. To encourage academic development:

- (1) make content relevant to students' backgrounds and prior experiences;
- (2) recognize significant dimensions of individual difference between students;
- (3) create encounters with diverse perspectives that challenge pre-existing information, assumptions and values;
- (4) provide activities that help students integrate diverse perspectives, assumptions, value orientations.

Chickering and Gamson formulated the *Seven Principles for Good Practice in Undergraduate Education* (Chickering & Reisser, 1993) that apply directly to teaching and assert that good practice

- (1) encourages student-faculty contact;
- (2) encourages cooperation among students;
- (3) encourages active learning;
- (4) gives prompt feedback;
- (5) emphasizes time on task;
- (6) communicates high expectations;
- (7) respects diverse talents and ways of learning.

### 2.3.2 Career development

The history of career counselling is usually traced back to Frank Parsons who in 1909 in his book *Choosing a Vocation* proposed three steps of vocational counselling: self-analysis, occupational analysis and true reasoning or the integration of self-information with occupational information (Walsh & Osipow, 1990). Since then many theories of career choice and development have evolved (Brown & Brooks, 1990; Osipow, 1983). In a review of the literature since 1980 Hackett and Lent (1992) identified the current major theories based on their empirical status (see 2.3.2.1. to 2.3.2.3). In a literature review of empirical research on career counselling in South Africa for the period 1980 - 1990, de Bruin and Nel (1996) observed that the South African research in this field was strongly influenced by the theoretical perspectives of Holland and Super. These authors advocated the development of a South African model of career development. As is the case with student development theories, career development theories are often criticized as being formulated to explain career development for white American males and thus do not address gender and culture/ethnicity differences. Issues of gender and culture/ethnicity are also the focus of current career development research (Brown & Brooks, 1990; Walsh & Osipow, 1994).

#### 2.3.2.1 Person-environment interaction theories and work adjustment theory

The trait and factor perspective has been replaced by person-environment (P-E) fit and the two most influential vocational P-E fit theories are those of Dawis and Lofquist, and Holland. P-E fit theories focus on the match between personal characteristics and those of the work or educational environment. Good P-E fit is assumed to be associated with positive outcomes such as work satisfaction, achievement and retention. Work adjustment is the dynamic process whereby people achieve and maintain correspondence or a harmonious relationship with their work environment. (Hackett & Lent, 1992). Holland's theory is described in Chapter 3.

#### 2.3.2.2 Developmental theories

Developmental approaches emphasize the process of career decision making and the factors which influence it. This approach is represented by a vast amount of research



Gottfredson (1981, 1983, 1985) proposed a stage model of occupational aspirations in which she focused on the development of the self-concept with respect to gender, social class, intelligence, interests, values and abilities. As people move through the four proposed stages of orientation to size and power (ages 3-5 years), orientation to sex roles (ages 6-8 years), orientation to social evaluation (about ages 9-13 years) and orientation to the internal, unique self (beginning around age 14 years), they reject occupations as unsuitable according to their self-concept on the basis of gender, social class and ability level, and personal interests and values. This results in a "*zone of acceptable alternatives*" (Gottfredson, 1981, pp. 557,556) based on personal preference and perception of accessibility. People often have to compromise their vocational aspirations and compromises are made in the following order: first interests are sacrificed, then prestige level, followed by sex type. Empirical support for Gottfredson's theory has been mixed (Brooks, 1990; Hackett & Lent, 1992). From studies on the process of compromise it appears that prestige, interests and sex type of occupation interact more complexly and probably not in the exact way that Gottfredson proposed. The stage model appears to need revision and one study demonstrated that the area of the zones of acceptable alternatives increased with age up to late adolescence, whereas the theory predicts a decrease.

Vondracek, Lerner and Schulenberg (1986) emphasized a life-span developmental-contextual approach which focuses on the dynamic interaction of the individual and their context. They argued that the concept of stages may be outdated (Hackett & Lent, 1992). To date there has been limited empirical work on this theory (Hackett & Lent, 1992).

Super's (1957, 1980, 1990) segmental theory of career development is increasingly viewed as the most comprehensive and promising of the developmental theories (Brown, 1990). The theory is segmental because it represents "*a loosely unified set of theories dealing with specific aspects of career development, taken from developmental, differential, social, personality, and phenomenological psychology and held together by self-concept and learning theory.*" (Super, 1990, p. 199). The Archway Model with the self as keystone provides a graphic representation of the segmental model of career development (Super, 1990). An overview of the theory

is not possible in this limited space and only certain concepts will be highlighted. development domain. Krumboltz and Nichols (1990) have integrated the social Super proposed the following stages of career development: growth, exploration, establishment, maintenance and decline (Super, 1957). Each stage is characterized by developmental tasks and coping behaviours specific to the relevant stage. The ages at which transitions occur between stages are very flexible and transitions involve recycling through one or more stages. Developmental stage and life roles were integrated in the life-career rainbow in which six life roles are depicted in schematic life space (Super, 1980). The important concept of role salience was introduced in the context of the life career rainbow. A career is seen as an interaction of life stage, life roles, personal and situational determinants and does not only focus on the role of worker. Decision making is central to career development and decision points occur before assuming a new role, at the time of giving up an old role and when making significant changes to an existing role. Super (1980) depicts a rational model of career decision making. Career maturity is defined as *"the individual's readiness to cope with the developmental tasks with which he or she is confronted because of his or her biological and social developments and because of society's expectations of people who have reached that stage of development."* (Super, 1990, p. 213). According to Super readiness to make career decisions in adulthood should be called career adaptability rather than career maturity because the link between age and developmental tasks is not as strong in adulthood as it is in adolescence. Self-concept theory plays a central role in Super's career development theory. A person does not have a self-concept, but many self-concepts which are organized in a self-concept system and Super has proposed a taxonomy of dimensions and metadimensions of self-concepts and self-concept systems (Super, 1990). More recently the construct self-concept was broadened to "personal constructs" conceptualized as products of learning (Hackett & Lent, 1992).

Osipow (1983) concluded that Super's theory was generally supported by the research literature. Stead and Watson (1995) explored the relevance of the career approaches of Super and Vondracek *et al.* for black South Africans and pointed out that although useful *"neither of these approaches adequately address racial and discrimination issues nor culturally based perceptions of work and career among Blacks."* (p. 11). They proposed that research be done to re-evaluate certain theoretical concepts within the black South African context.



2.3.2.3 Social cognitive models, including social learning and self-efficacy theory

Social cognitive models represent a relatively recent trend in the career development literature and stem from Bandura's social learning theory, more recently renamed social cognitive theory (Hackett & Lent, 1992). Krumboltz's social learning approach to career decision making and Hackett and Betz's career self-efficacy theory will be briefly described.

According to Krumboltz's social learning theory of career decision making (Krumboltz & Nichols, 1990; Mitchell & Krumboltz, 1990), four categories of factors influence career decision making:

- (1) genetic endowment and special abilities such as intelligence;
- (2) environmental conditions and events;
- (3) learning experiences; and
- (4) task approach skills which result from interaction among the first three factors.

The interaction of these four factors results in cognitions, beliefs, skills and actions. Individuals formulate self-observation generalizations about their task efficacy, interests and personal values, and world-view generalizations about the environment. The following task approach skills are important in career decision making: recognizing an important decision situation; defining the decision or task manageably and realistically; examining and accurately assessing self-observations and world-view generalizations; generating a wide variety of alternatives; determining which information sources are most reliable, accurate and relevant; and planning and carrying out these six steps of decision making. Krumboltz has stated a number of testable theoretical propositions. In reviewing the empirical evidence related to the theory Mitchell and Krumboltz (1990, p. 177) concluded "*there is considerable evidence to support the processes posited by the theory*" with respect to factors influencing educational and occupational preferences and task approach skills, however there is less evidence regarding entry behaviours. Several of the propositions have fairly strong supporting evidence while others have little or none (Hackett and Lent, 1992). These authors suggested that the theory should be updated to include recent developments in Bandura's general social cognitive theory



so that additional social cognitive concepts could be generalized to the career development domain. Krumboltz and Nichols (1990) have integrated the social learning theory of career decision making with Ford's Living Systems Framework, placing it in a broader theoretical context.

Hackett and Betz's (1981) career self-efficacy theory is an application of Bandura's self-efficacy theory to the career domain. Self-efficacy theory is concerned with a person's belief that they can successfully perform a task or behaviour, and not with their objective skills. Beliefs of self-efficacy influence whether behaviour will be initiated, the amount of effort that will be expended and how long the behaviour will persist in the face of obstacles (Brooks, 1990). Although self-efficacy is seen as the most important causal influence, other factors such as outcome expectations (beliefs about the consequences of performance), performance incentives, and environmental support also influence behaviour. Hackett and Betz proposed that self-efficacy influences the career decisions, achievements and adjustment behaviours of both men and women. However, they stressed self-efficacy theory's potential to explain women's career development (Hackett & Lent, 1992).

### 2.3.3 Personal development

Student development aims to educate "the whole student" implying that the students' physical, interpersonal, emotional and ethical development is as important as their cognitive or academic development. The important role people relationships and the higher education environment play in student development is emphasized by research indicating that the frequency and quality of students' interactions with faculty and peers and participation in extracurricular activities are all positively associated with persistence and development. Pascarella and Terenzini (1991, p. 620) reported that *"A large part of the impact of college is determined by the extent and content of one's interactions with major agents of socialization on campus, namely, faculty members and student peers. The influence of interpersonal interaction with these groups is manifest in intellectual outcomes as well as in changes in attitudes, values, aspirations and a number of psychosocial characteristics."*

Student development programmes and services can be grouped into three sequenced clusters of functions, namely **entering services**, **supporting services** and **culminating**

**Entering services** focus on preadmissions, recruitment, admissions, financial aid, employment, orientation, educational planning, academic skills assessment, prior learning assessment and registration.

**Supporting services** assist students during their passage through the institution. Programmes and services include academic support services such as peer tutoring and mentoring; career development; lifeskills training; personal counselling and support groups; recreational, sport and cultural activities; student organizations; health services; and residential life.

**Culminating services** assist students in their transition from the higher education institution to work or further education. Programmes and services include internships, placement services, writing of a curriculum vitae and preparing for an interview.

## 2.4 OUTCOMES OF STUDENT DEVELOPMENT

Owens (1989) and Pascarella and Terenzini (1991) reported research findings on how students change during college and the effect of higher education on students. Students make statistically significant gains in factual knowledge and in a range of cognitive and intellectual skills. However change extends substantially beyond cognitive growth and includes development on a broad number of value, attitudinal, psychosocial and moral dimensions. Changes are thus not concentrated in a few isolated areas, but are of a mutually consistent and supporting nature occurring in a holistic, integrated way that encompasses many facets of individual development. These findings are consistent with Chickering's model of student development. Pascarella and Terenzini pointed out that as many of the dimensions on which change occurs have a developmental base, change during college may not reflect the impact of college, but may represent natural maturation. However, they reported evidence that indicates that in certain areas change is attributable to college attendance rather than rival explanations. There is more extensive and consistent evidence to support the net impact of college on learning and cognition, moral reasoning and career and economic returns than the areas of attitudes, values and psychosocial characteristics.

There is a modest tendency for changes in intellectual skills to be larger in magnitude than changes in other areas. A strong positive impact is reported on knowledge and cognitive development when first-year students are compared with senior students. Advances in general verbal and quantitative skills are reported and, as would be expected, substantial advances in knowledge of the specific subject matter related to major field of study are demonstrated. Gains are also made in a range of general intellectual competencies and skills such as oral and written communication skills, formal reasoning, critical thinking and the ability to deal with conceptual complexity and to solve ill-structured problems. There is an increase in the ability to relate ideas to one another, theoretical issues are better understood and an interest in lifelong learning is fostered. An enhanced repertoire of intellectual skills allows individuals to adapt more quickly and efficiently to changing environments and this development probably represents the most important gain for the student's future. Educational achievement, career development and income levels are positively related.

The aim of student development is to educate the whole person and evidence indicates that higher education does achieve this goal with mainly positive results. Increased self-discovery takes place with changes in attitudes, beliefs, self-concept, values and behaviour. There is a trend towards liberalization with shifts toward openness, a tolerance for diversity, a stronger "other-person orientation" and concern for the rights and welfare of others. Authoritarianism decreases and autonomy grows. Graduates tend to be more adaptable and more future orientated with more liberal views. Political sophistication increases and aesthetic capacity grows. Students not only become more competent, they become more confident as self-esteem increases. Students appear to move toward greater self-understanding, self-definition, personal commitment and more refined ego functioning. Involvement in campus activities promotes the development of leadership and lifeskills. Students also show modest gains in general personal adjustment, sense of psychological well-being and general personal development and maturity. Graduates also tend to be more efficient consumers and are more concerned with health maintenance through a healthy lifestyle, than only the treatment of physical and mental health problems. There is an increased practical competence in the area of family life with an emphasis on the quality of family life.

On the negative side some increase in hedonic behaviour such as drinking and



gambling may occur. A decrease in formal religious identification may take place and religious activity may decline. Ethical behaviour and integrity have not been found to be so positively influenced by the higher education experience, but it is thought that these characteristics are acquired at an earlier age and may be better learnt in other social and learning environments.

## 2.5 PROMOTING STUDENT DEVELOPMENT

### 2.5.1 Promoting student development through academic development

Seven principles for good teaching practice in undergraduate education were given in section 2.3.1. Research has shown that the systematic ordering of learning opportunities promotes academic development. Pascarella and Terenzini (1991, p. 141) reported the use of learning cycles as an effective general approach as follows:

*"A considerable body of inquiry has focused on the effectiveness of instructional interventions designed to increase students' formal reasoning. In our synthesis of this evidence, we found one particular approach, termed **inquiry or learning cycle** ... to have the most consistently positive effects. The purpose of the learning cycle-inquiry approach is to move students from concrete to formal reasoning. It does this essentially by making the learning process highly inductive, or concrete, in nature. Concepts are taught in three stages: (1) exploration - students participate in an activity or laboratory with concrete materials (for example, collect data or conduct an experiment); (2) invention - students draw together ideas and/or concepts out of the concrete activities; and (3) discovery - students generalize or apply the concept."*

Application of such a learning cycle can increase teaching effectiveness. Kolb proposed a learning cycle in his theory of experiential learning that is similar to the approach cited above. Kolb's theory is described in Chapter 4 and in this study it represents one approach in academic development as an aspect of student development.

### 2.5.2 Promoting student development through career development

Career development can be promoted in many ways including self-help books such as

Bolles' (1988) *What color is your parachute?* and workbooks, through career development programmes and workshops that address career development tasks and decision making skills, through individual counselling and through the use of computerized career guidance programmes such as CAREER MENTOR (Hartley, 1992). These programmes and services can be made available to students to promote their career development.

Holland's theory of person-environment interaction is described in Chapter 3. In this study it represents one approach to career development as an aspect of student development.

### **2.5.3 Promoting student development through personal development**

An underlying assumption in student development is that students are responsible for their own lives (Lyons, 1990). Research has demonstrated the positive effects higher education can have on students' personal development (Pascarella & Terenzini, 1991). Institutions of higher learning have a responsibility to assist students to become independent and interdependent through promoting their personal development. To do this institutions need to define this responsibility and include it in their mission and goals along with their academic goals. These goals should not remain lofty ideals, but need to be realized by devoting curricular and extra-curricular time, staff and resources to providing the necessary student development programmes and services.

Personal development as an aspect of student development is not directly represented in this study, the focus of which is to explore the possible interaction of Holland and Kolb's theories. However, typology models emphasize individual differences, and recognizing and respecting individual differences, especially with the ever increasing diversity of the student body, are important aspects of student development.

## **2.6 CRITICISM OF THE THEORIES OF STUDENT DEVELOPMENT**

The first work on developing theories of student development dates back to the 1960s. At that time research was carried out on, and student developmental theories were based on, adolescent or young adult, white, upper-class, male American student populations. The student profile has changed dramatically since then and theories

developed at that time are now criticised as being inadequate or irrelevant for the present situation.

Theory development is a dynamic, evolving process, and research and theory development over the past few decades has responded to the changing profile of the student body, the changes students undergo and the factors that influence those changes and student success. For example, Chickering (Chickering & Reisser, 1993) has recently updated his seven vectors of development. Since the 1980s awareness of inadequacies and gaps in the theories has led to a variety of theories addressing the needs and characteristics of previously under-represented groupings in the diverse student profile, such as females, non-white students, minority groups and adult learners (Chickering & Reisser, 1993; McEwen *et al.*, 1990; Sue & Sue, 1990; Upcraft & Gardner, 1989; Upcraft & Moore, 1990).

These more recent theories which attempt to encompass the complexity and diversity of student development promote a broader view and understanding of students' needs. However, the traditional theories are not necessarily redundant because they were based on a restricted student sample. Chickering and Reisser (1993) noted that although recent research may indicate variations in style and sequence, the fundamental themes appear. The more recent theories of student development can supplement the traditional theories. A focus on commonalities of the student experience, and not only an emphasis on the diversity, is needed to promote student development.

The literature on student development provides a predominantly American perspective. Stead and Watson's (1995) criticism of career development theories developed by American authors that although useful, they do not always address issues pertinent to the South African context (see 2.3.2.2) is relevant to all the theories discussed in this chapter. Re-evaluation of certain theoretical concepts should be undertaken within the South African context.

## 2.7 SUMMARY

In this chapter the concepts of development and student development are elucidated. Student development theories are divided into four categories, namely psychosocial



theories, cognitive-structural theories, person-environment interaction theories and typology theories. A brief overview of major theories representing these four categories of student development theories is given. Factors affecting student development in the domains of academic development, career development and personal development are described and research results indicating the outcomes of student development are summarised. Institutions of higher education as providers of high-level manpower and professionals need to promote student development. In this study Holland's theory of person-environment interaction represents one approach to career development as an aspect of student development, and Kolb's theory of experiential learning and learning styles represents one approach to academic development as an aspect of student development. The empirical part of this study focuses on first-year university students.

In the following two chapters Holland's theory of person-environment interaction and Kolb's theory of experiential learning and learning styles will be described. The information in these chapters on Holland's vocational personality types and Kolb's learning abilities and styles will be used in Chapter 5 to develop a theoretical integrated model of vocational personality types, and learning abilities and learning styles. The empirical part of this study will then be described and reported on. Results from the empirical part of this study relevant to the proposed integrated model will then be discussed.