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Student Development in Higher Education

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Abstract

With the development of sciences and fields of higher education, new topics and theories were introduced, including theories of student development in higher education. Student development theories refer to a set of theories of educational psychology that theorize how students acquire knowledge in higher education settings. Although all of these theories provide a framework for understanding the differences between students› experiences, they each have their own assumptions about learning and development. Each also focuses on a different aspect of the process and a different output of students. Student development theories are divided into psychological, structural, cognitive, and typological theories. This article describes each of these categories in detail. The purpose of this article is to explain the theories of student development and their classification and to mention the position of each of them in enriching students› learning in higher education by reviewing the relevant literature.

Keywords: Student Development Theories, Higher Education, Educational Management, Educational Psychology.

Introduction:

As knowledge about human growth and learning has grown rapidly, so has the opportunity for more effective teaching methods. But using these advances requires combining insights into a variety of fields - from the biological sciences and neuroscience to psychology, sociology, growth and learning sciences - and connecting them to the knowledge of successful approaches that emerge in education. In this regard, theories for student development have been expressed. (1) Student development theories refer to a set of theories of educational psychology that theorize how students acquire knowledge in higher education settings. In a classification, student development theories are divided into five categories:

1- Psychological: Psychological theories are related to long-term issues that occur during a person›s personal life according to his age. In fact, these theories focus on individual progress through life stages.

2-Cognitive-structural: These theories deal with the perception and processing of students› experiences.

3-Person-environment: These theories conceptualize the student›s relationship with the educational environment and pay attention to his behavior as a social function. These theories are important in career path planning.

4- Human Existentialism: These theories focus on philosophical concepts of human nature. Concepts such as freedom, responsibility, self-fulfillment, self-awareness and a positive self-image.

5-Student development process models: These models are divided into two categories abstract and practical. In the abstract category, psychological dimensions and in the practical category, behavioral dimensions are desired. In another category, theories of student development fall into three categories: psychological theories, cognitive structural theories, and typological theories.

Although all of these theories provide a framework for understanding the differences between students› experiences, they each have different assumptions about learning and development. Each also focuses on a different aspect of the process and a different output of students. Pascarla and Ternzini state that one of the most difficult tasks in summarizing their research on student output was to select a conceptual framework for organizing their review article. (2)They decided to organize the evidence obtained according to the different types of student output; this approach found the advantage of being consistent with theories of student development. They also stated that an important drawback of this approach is that there is clearly some artificial function inherent in each aspect of student output in separate categories. A student does not develop in an irregular process whose components are not related to each other, but develops as a whole in an integrated way. Development in one area is closely related to development in another. Nevertheless, when a large amount of evidence is under stress, a reasonable categorization of the results is essential. Kolbeck et al. Believe that student development is possible through a process of «professional development.»(3) He defined student professional development as continuous preparation at all levels of education, academia, department or individual that students receive to cover current and especially future needs for education, research and implementation.(3) According to the following theories of student development in higher education, we urge readers to keep in mind that the aspects of learning and development described here are separated in order to achieve a more comprehensive cognition. To this end, we provide a description of each approach. In the table below we present a list of theories of student development

Description of the theory	authors	tool	References / contact information
Psychological theories			
Seven aspects of identity development	Chikering & Reiser (1993)	The task of student development and lifestyle evaluation	www.geocities.com/collegepark/classroom/3022/SDTLA.html Student Development Associates PMB 500, 2351, Collage Station Road Athens, GA 30605-3664
Developing African American Identity	Cross (1991)	Questionnaire B, Extreme attitudes towards identity	Cross Jr, W. E. (1991). Shades of black: Diversity in African-American identity. Temple University Press.
White Attitude Identity Questionnaire	Helms & Cook (1999)	White Attitude Identity Questionnaire	Claney, D., & Parker, W. M. (1989). Assessing White racial consciousness and perceived comfort with Black individuals: A preliminary study. Journal of Counseling and Development: JCD, 67(8), 449.
Beliefs, attitudes, and behaviors that affirm the life and cultural background of African American people	Baldwin & Bell (1982)	African Consciousness Questionnaire	Baldwin, J. A., & Bell, Y. R. (1982). The African self-consciousness scale manual. Unpublished manuscript, Florida A & AM University, Tallahassee, FL. Baldwin, J. A., & Bell, Y. R. (1985). The African self-consciousness scale: An Africentric personality questionnaire. The Western Journal of Black Studies, 9(2), 61.
Development of racial ethnic identity of adults	Phinney (1992).	Multi-group racial ethnic identity questionnaire	Phinney, J. S. (1992). The multigroup ethnic identity measure a new scale for use with diverse groups. Journal of adolescent research, 7(2), 156-176.
Development of sexual identity for Lesbian, Gay, Bisexual, and Transgender people	Cass (1984)	Gender Identity Questionnaire	Cass, V. C. (1984). Homosexual identity formation: Testing a theoretical model. Journal of sex research, 20(2), 143-167.
Cognitive structural theories			
Intellectual development	Baxter-Magolda, (1985)	Ontological Reflection Questionnaire	Baxter-Magolda, M., & Porterfield, W. D. (1985). A new approach to assess intellectual development on the Perry scheme. Journal of College Student Personnel. Magolda, M. B. B. (1992). Knowing and reasoning in college: Gender-related patterns in students' intellectual development. Jossey-Bass.

Intellectual development	King & Kitchener (1994)	Reflective Judicial Interview	Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults. Jossey-Bass Higher and Adult Education Series and Jossey-Bass Social and Behavioral Science Series. Jossey-Bass.
Internal development	Rest, Thoma & Edwards, (1997)	Problem definition test	Rest, J., Thoma, S., & Edwards, L. (1997). Designing and validating a measure of moral judgment: Stage preference and stage consistency approaches. Journal of educational psychology, 89(1), 5. Rest, J. R., Bebeau, M. J., & Thoma, S. J. (1999). Postconventional moral thinking: A neo-Kohlbergian approach. Psychology Press.
Moral orientation ((meditation and justice	Liddell & Davis (1996)	Ethical Orientation Questionnaire	Liddell, D. L., & Davis, T. L. (1996). The Measure of Moral Orientation: Reliability and validity evidence. Journal of College Student Development.
Identity development (cognitive, interpersonal, (transpersonal	Kegan (1982)	Objective / subjective questionnaire	Kegan, R. (1982). The evolving self. Harvard University Press.
Typological theories			
learning methods	Kolb (2014)	Learning style questionnaire	Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.
Character types	Myers (1980)	Myers Briggs Personality Indicators Questionnaire	Myers, I. B., & Myers, P. B. (1980). Gifts differing. Palo Alto. Myers, I. B., McCaulley, M. H., & Most, R. (1985). Manual, a guide to the development and use of the Myers-Briggs type indicator. Consulting Psychologists Press.

Psychological theories of student development in higher education

Psychological theories relate to specific issues that people face at different stages of their lives, that is, questions that develop ontology. For many students, the time they spend at university coincides with important events that take place in their personal lives. These events include living alone and standing on your own two feet, looking for a job or changing your current job, migrating, managing emotional events, searching for meaning in work and relationships, and more. In short, the student years are the years when people seek, establish, and internalize new personal and professional identities. The cross-identity development model demonstrates one aspect of psychological development. Another example can be seen in the developments in first-year students living away from home for the first time. They want to succeed in their education, make new friends, and light up their career path; some also want to know more about themselves. These are the questions that psychological theories answer. Institutional researchers may find it useful to turn to psychological theories to understand students who drop out, differences in student grades, lack of adult student satisfaction with college, and differences in students› perceptions of the dormitory›s racist climate and atmosphere. In each of these examples, the basic institutional findings about students› retention, success, and perception of the university can be explained by reference to psychological theories.

Structural-cognitive theories of student development in higher education

In this category of theories, the emphasis is on how people understand and interpret their experiences and on how to develop. Research that uses these theories focuses on issues such as how students think about their jobs, their educational difficulties, the ethical issues they face in their jobs, etc., based on their complexity, depth, and impact. They research the level of development. These levels of development are examined in this category of theories of student development in higher education. For example, in classes, on committees, and in formal settings, students are asked what they believe about controversial questions. How should a society's economic development needs be balanced with its need for a healthy environment? How should student dormitories create a warm and safe environment for students while respecting the right to freedom of expression? And questions like that. Many students get confused when answering such questions. Unfortunately, research into these theories has shown that when students are faced with such questions, many of them give the following answers: This is a personal opinion, so it does not matter what I think or what you think. One model that describes how students are increasingly able to answer controversial questions such as the one posed is the Reflective Judgment Model. (4) Based on extensive interviews with adults, this model summarizes the seven steps of cognitive development. These steps are classified into three levels: pre-reflective (steps 1 to 3), semi-reflective (steps 4 to 5), and reflective (steps 6 and 7). Each step represents a set of distinct assumptions about knowledge and its acquisition, and each is appropriate with a distinct strategy for answering and solving such questions, examples of which are posed above. King (2000) summarizes the three steps as follows:(5)

Pre-reflective thinking: Students who have ontological hypotheses at this level believe that knowledge is gained through the words of an expert person (such as a scientist, priest, or university professor) or through direct observation. The use of reasoning is not a feature of this level. They believe that what they know is absolutely true and they know it with absolute certainty. People who believe in this hypothesis often do not refer to what is bothering others (King, 2000, p. 5).(17)

Semi-reflective thinking: Thinking at this level is distinguished by the fact that knowledge carries with it a degree of uncertainty. Because there is always incomplete information, or differences and errors in data collection methods. Students who believe in this hypothesis use documentary evidence in their decisions, but always face the problem of how data with uncertainty leads to a reasoned conclusion. They tend to view judgments very personally and are very skeptical of the judgments and opinions of others (King, 2000, p. 18).(5)

Reflective thinking: People with reflective thinking believe that there is uncertainty in decision making but they do not succumb to it. They recognize the result they draw from the evidence as the most logical result, and they reasonably believe it. These conclusions are clearly based on assessments made of available data. They believe that assertive knowledge should be evaluated in relation to the environment in which it is created to prove its validity, and that each assertion should be evaluated in the light of new data, new methodologies, and new perspectives on the subject matter. And they must actively make their own decisions (King, 2000, p. 5).(19)

In the approach by Gross and Rutland, it was argued that education should be a combination of knowledge transfer and motivation in students. In fact, professors should not simply pass on soulless material to students. In addition to transferring knowledge, they should evoke a sense of excitement in students and cause students to crave content with enthusiasm, which increases students› learning and productivity.(6)

Assuming the deep commitment of a large number of students and academics to help learn critical thinking and problem-solving skills, especially for students to understand the relationship between evidence and judgment, documenting how students improve their ability to answer questions requires institutional attention. Attract a lot. Similarly, the role of universities in student personality development and civic education has been increasingly explored and discussed, leading to a new focus on this set of student outcomes. Institutional researchers can interpret data better if they turn to structural-cognitive theories.

Typological theories of student development in higher education

While both psychological theories and structural-cognitive theories are rooted in puberty models, typological theories describe differences that are very personal and preferential in nature. These theories focus on personality differences, and generally focus on students› worldviews and their views of the learning environment. These approaches are assumed to be stable even when students mature in other aspects of their lives. Learning theories are an example of these theories.

Kolb (1984 ,1981) identified four ways of learning and organized them into two dimensions: how students perceive information, and how students process experiences. (7,8) David Kolb proposed his theory of learning styles in order to provide a better understanding of the different ways in which individuals learn and solve problems. He considers learning style as a person›s way of emphasizing some learning abilities compared to other learning abilities, he believes that people are aware of the consequences of their learning styles and other available learning methods have advantages for them. The theory of empirical learning is the basis of Kolb›s theory. Because this theory emphasizes the pivotal role of experience in the learning process, it is called experiential learning.In this theory, learning is described as a process that produces the transformation of experience, knowledge, or science. According to Kolb, learners have two main tasks when learning, which they perform with distinct bipolar preferences. Their first task is to gain experience or understanding information, which is done in one of two ways: objectively or abstractly. The second task of learners is to process or convert information, which is done in one of two ways:

objectively or abstractly. The second task of learners is to process or convert information, which is done in one of two ways: reflective observation or active experimentation. In general, in Kolb›s theory, there are four main ways of learning: objective experience, reflective observation, abstract conceptualization, and active experimentation. We describe these four dimensions:(7,8)

Objective experience:

At this stage of the learning cycle, the individual learns through special experiences, communication with people and sensitivity to people›s emotions. At this stage of the learning cycle, one relies more on one›s inner feelings and abilities than on a systematic approach to problem solving and situations. At this stage, he trusts his emotions and can not keep an open mind and act flexibly in matters and cases. Objective experience can be equated with the act of feeling

Reflective view:

This dimension includes careful observation before analogy and judgment, looking at things and objects from different angles, and searching for the meanings of things. Understand most ideas and situations from different perspectives. He relies on objectivity, patience, and careful judgment, but does not necessarily take action. Also, one refers to thoughts and theories to form one›s own ideas. Reflective observation can be equated with the verb to watch.

Abstract conceptualization:

This dimension includes logical analysis of perspectives, principled and systematic design, and rational perception of situations. Accordingly, at this stage of learning, one uses logic and thinking more than emotion to understand issues and situations. Abstract conceptualization can be equated with the act of thinking.

Active testing:

This dimension includes the ability to provide tools, risk, and influence people and events during the operation. At this stage, learning takes an active form, that is, it becomes an experiment to influence and change situations. Also, one does not merely observe the situation, but has a real interest and active approach to the problem. Active experimentation can be equated with the act of doing.

Morris's study, which examined the Club's method of experiential learning, suggested that the Club's experimental learning cycle is perhaps the most scientifically influential and cited in the theory of experiential learning. However, a fundamental issue in the interpretation of the Kolb model is the lack of precision about what constitutes an objective experience. The main question is: what constitutes a specific experience and what is the nature of the treatment of a particular experience in experiential learning? Our analysis identified five issues: Active learners' engagement because knowledge is located in place and time. Learners are exposed to innovative experiences, which include risk. Learning calls for research into specific real-world problems, and critical reflection acts as a medium for meaningful learning. Accordingly, a revision of the Kolb model was proposed: experimental learning consists of a context-rich concrete experience, critical reflective observation, text-specific abstract conceptualization, and practical active experimentation. However, it has been suggested that further experimental studies are needed to test the proposed model.(9)

At the core of Kolb›s theory is that the learner progresses through the learning cycle: first, experiences lead to reflection and observation, and through which concepts are formed. Then, the development of concepts leads to new experiences and subsequent experiments. An effective learner tends to follow all four steps, but may be more proficient in one. Combining objective experience and abstract

conceptualization (how to perceive) with reflective observation and active experimentation (how to process) creates four learning styles: divergent, convergent, absorbing, and adaptive.

Student workload

Student workload includes the number of hours a student needs to go to classes, prepare for those classes, take exams, prepare for exams, read required books, and so on.

Conclusion

Student development theories focus on enriching learning. Each theory pursues a specific background and goal and looks at learning from a different point of view. Student development theories refer to a set of theories of educational psychology that theorize how students acquire knowledge in higher education settings. Student development theories are divided into psychological, cognitive-structural, and typological theories. Psychological theories relate to specific issues that people face that including different questions about ontology of their lives. In this category of theories, the emphasis is on how people understand and interpret their experiences and on how to develop. Research that uses these theories focuses on issues such as how students think about their jobs, their learning difficulties, the ethical issues they face in their jobs, etc., based on their complexity, depth, and impact. They research the level of development. These levels of development are examined in this category of theories of student development in higher education. While both psychological theories and structural-cognitive theories are rooted in puberty models, typological theories describe differences that are very personal and preferential in nature. These theories focus on personality differences, and generally focus on students› worldviews and their views of the learning environment. These approaches are assumed to be stable even when students reach maturity in other aspects of their lives. Learning theories are an example of these theories.

References

1. Cantor P, Osher D, Berg J, Steyer L, Rose T. Malleability, plasticity, and individuality: How children learn and develop in context1. Appl Dev Sci. 37–307:(4)23;2019.

2. Pascarella ET, Terenzini PT. How college affects students: Findings and insights from twenty years of research. ERIC; 1991.

3. Colbeck CL. Professional identity development theory and doctoral education. New Dir Teach Learn. 16–9:(113)2008;2008.

4. King PM, Kitchener KS. Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults. Jossey-Bass Higher and Adult Education Series and Jossey-Bass Social and Behavioral Science Series. ERIC; 1994.

5. King PM. Learning to make reflective judgments. New Dir Teach Learn. 26–15:(82)2000;2000.

6. Gross Z, Rutland SD. Experiential learning and values education at a school youth camp: Maintaining Jewish culture and heritage. Int Rev Educ. 49–29:(1)63;2017.

7. Kolb DA. Learning styles and disciplinary differences. Mod Am Coll. 55–1:232;1981.

8. Kolb DA. Experience as the source of learning and development. Up Sadle River Prentice Hall. 1984;

9. Morris TH. Experiential learning–a systematic review and revision of Kolb's model. Interact Learn Environ. 77–1064:(8)28;2020.