

Learning Approaches in Higher Education

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Abstract: The analysis of some of the learning approaches in higher education started from N. Entwistle' conception (1988) which says *the development of the conception regarding students' learning (from memorising to transforming)* and intellectual development (*from dualism to relativism*) are factors that influence the option for a certain approach to learning and they are based on the argument that a learner doesn't approach leaning in just one way. Other research emphasise the role of *the educational environment as the third factor of influence regarding the approaches to learning*. This involves the nature of the working task, the circumstances in which performance will take place, providing the data concerning the task etc. (Biggs, J., 1987).

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1. Factors influencing learning approach in higher education

Learning approach by students is reflected in their effort and involvement in the learning process in their desire and complete understanding of the contents of the task achievement manner. Referring to the factors that determine the learning approaches by the students, Entwistle, N. (1988) shown that, at the university level, there is a development in the nature of students' thinking, they gradually moving from, the belief in *dualism* to the recognition of *relativism*. Thus, the belief that the answers submitted by teachers are the only source of knowledge and must be reproduced in exam preparation the

students reach personal conclusions based on evidence and personal interpretations.

The second influential factor was identified by Saljo (1979 quoted by Entwistle, N. (1988), he describes a similar development of the concept of learning approach. It was noted that there is a contrast between students who perceive learning as involving information storage and reproduction, and those who try to draw its own meaning in order to transform the material provided. There are three stages of this development. In the first stage, the student becomes aware of the influence of the learning context, what to learn, and how it should proceed (Gibbs, G., 1981 apud Saljo 1979), but this awareness does not apply necessarily their own learning. The second stage is related to the distinction between “learning for life”; versus “learning for school”. In this case they recognize that the environment in which learning takes place is sometimes artificial and unrelated to the external environment. The third stage of development is to make the distinction between “learning” and “a real learning”; or between learning and understanding. The existence of these stages in the conceptualisation of learning suggests that this process is not static or constant over time. (Bradford, K., 2004). According to Entwistle, N. (1988), the development of the conception of learning (from reproduction to transformation) and intellectual development (from dualism to relativism) are factors that influence the choice of a particular approach to learning and support the argument that a student does not address learning in one way only.

The authors distinguish between the five conceptions of learning:

1. *Learning as accumulation of knowledge. Learning means to enhance your knowledge. “Start with a small bag in which there aren’t too many things, and gradually fill it with more and more things.*
2. *Learning as memorizing information. To learn means to transfer information from various sources in the memory of student*
3. *Learning as the acquisition of useful knowledge and skills. To learn means to assimilate information and to form skills, abilities, and competencies useful in everyday life.*
4. *Learning as understanding of the content. To learn means to establish connections between ideas and information to discover the meaning of content and appreciate their value.*

5. *Learning as personal interpretation of knowledge. To teach is to give a personal significance for knowledge, to analyse them critically and constructively, and reconfigure them, and reconfigure your own way of thinking in the same time.*

These concepts can be subsumed under two broad categories of vision on learning:

➤ *Learning conceived as memorization and reproduction, including the first three categories of conceptions*

➤ *Learning conceived as understanding and personal interpretation of knowledge. In this category would include the last two conceptions of student learning*

Other research emphasizes the role of the educational environment as a third factor of influence in the approach to learning. It concerns the nature of the task, the conditions under which performance will occur, providing data on the tasks. (Biggs, J., 1987) etc. Saljo (1979) (cited by Gibbs, G., 1981) asked a number of 72 subjects to read a paper on the surface and deep approach of the learning. He concluded that the vast majority of subjects recognized the dichotomy between deep approach and surface approach and argued that in the future they will devise methods and procedures for learning from this perspective. A surprising result was that very few were identified as belonging exclusively to one of these categories. The general attitude of 61 of 72 subjects is that they use both ways depending on the context of the learning. This research suggests that the manner of learning approach can be changed by the vision of the course and teaching methods.

Biggs (Biggs, J., 1987) summarizes the factors that influence the way learning is approached as follows:

1. *Factors relating to student: patterns of information processing skills and locus of control, the previous general knowledge and the experience level*

2. *Situational factors related to the nature of the task, expected performance, the manner of assessment, course structure etc.*

This breakdown highlights the role of personality factors in the learning approach. In addition to the thinking characteristics of students and their conception about learning, learning approach is influenced by students' belief that good academic results are due to their self or to external factors, to personal experience and prior knowledge.

2. Ways of approaching learning.

Earlier research (Marton, F., Saljo, R., 1976) identified two main approaches to learning by students: the surface approach and in-depth approach.

In-depth approach of the learning involves establishing connections between new information and content and the old ones, organization and structuring of content ideas, cognitive restructuring schemes, focus on evidence and arguments, establishing personal connections with real world experience. Students who adopt a deep approach are intrinsically motivated in learning, seeking to extract meanings from what they learn. (Entwistle, N., 2000) and use their metacognitive skills to monitor and regulate learning. (Blumberg, P., 2000).

In-depth approach is correlated with the existence of intent to understand. Within the research, students were asked to read a text and then were asked questions aimed at understanding. Responses were placed on a scale of 1-4, where 1 meant a very low level of understanding and 4 a high level of understanding. Among students identified as performing surface learning five gave responses that revealed their placement on the last position in terms of understanding, 8 had provided adequate answers for next level of understanding, a student assigned to level three of understanding, but none could not be categorized in the maximum (4) understanding. Among those performing in-depth learning, five responses were classified as reflecting the best understanding, 4 were enrolled in the level immediately inferior and none in the lower levels of understanding. This research demonstrates that the understanding involved in learning achievement is directly proportional to the in-depth, thorough learning. Learning is an intrinsic value for the student.

Surface approach to learning involves memorizing information, withholding information literally without students' personal reflection and interpretation, the difficulty of differentiating the general concepts, principles from the laws of evidence and arguments on which they are based. (Dumitru, I.A.I., 2001). Students who develop a surface approach of the learning are extrinsically motivated, especially by the fear of failure (Biggs, J., Moore, P., 1993). Surface approach to learning requires the student's intention to accomplish the task or learning requirements. The emphasis is on some „signs” such as the text itself

and on the secondary elements, such the memorization for the evaluation. The combination of concepts and facts are not made after a thorough reflection. There is a failure to distinguish between the principles and the evidence that led to their establishment, between the old and the new. The tasks are seen as external constraints, knowledge is something different from everyday reality. (Ramsden, P., 1998 as cited in Morgan 1993).

Saljo, R. & Wyndhamn (1993) together with other researchers (Entwistle, N., Ramsden, P., 1983) have stated the need for a third conceptualisation on learning approach. They have named it "*the strategic approach*". It refers to students who are learning to get the highest grade possible through effective time management and organized study methods and by focusing on the evaluation process. According to Entwistle, N. (2000 pag.3), "interviews suggest that strategic students have two areas of interest - academic content and requirements of the evaluation". If identification of "in depth-approaches" and "surface approaches"; has its origins in research that examines the significance obtained from reading a text, dealing with "strategic approach; is clear from research that relate to everyday situations (Morgan, A., 1993).

Bowden J and Marton, F. (1998) says that changing the learning environment for students, most desirable approach would be adopted. Bowden identified some common features of higher education that encourages the surface approach of the learning. For example, dividing the course into several short units, the immediate assessment, evaluation requiring reproduction, providing feedback through the grades only, unreturn to the evaluated contents and establish a low number of intra-and interdisciplinary links represent some of the factors that favour the surface approach. It follows that it is very important to design courses so as to produce understanding.

To summarize, in-depth learning involves critical analysis of new ideas, linking them with the concepts and principles already known, and results in achieving understanding and long-term retention of information so that it can be used in solving problems within new contexts. It can therefore be transferred. By contrast, surface learning refers to the tacit acceptance of information and memorization of isolated and unrelated facts. Has the effect of retaining surface material prepared for evaluation and not conducive to understanding and transfer.

The table below summarizes the major characteristics of the three approaches to learning (deep, surface and strategic), and illustrates the importance of how curriculum management in higher education. Setting clear goals, creating a flexible environment for learning and use appropriate learning strategies that stimulate students' self confidence are some of the factors identified as encouraging in-depth learning.

	Deep learning	Surface Learning	Strategic learning
Definition	Examining new facts and ideas critically, and tying them into existing cognitive structures and making numerous links between ideas.	Accepting new facts and ideas uncritically and attempting to store them as isolated, unconnected, items.	Targeting the students' learning process towards achieving maximum academic performance, by the objective means of grading.
Characteristics	<p>Looking for meaning.</p> <p>Focussing on the central argument or concepts needed to solve a problem.</p> <p>Interacting actively. Distinguishing between argument and evidence.</p> <p>Making connections between different module/chapters/units.</p> <p>Relating new and previous knowledge.</p>	<p>Relying on rote learning.</p> <p>Focussing on outwards signs and the formulae needed to solve a problem.</p> <p>Receiving information passively. Failing to distinguish principles from examples.</p>	<p>Relying on both rote leaning and meaningful learning, depending on the assessment task.</p> <p>Using systematic learning methods to receive the highest mark possible.</p> <p>Two focus points: the academic material and the requirements of the assessment.</p>

	<p>Linking course content to real life.</p>	<p>Treating parts of modules and programmes as separate.</p> <p>Not recognising new material as building on previous work.</p> <p>Seeing course content simply as material to be learnt for the exam.</p>	
<p>Encouraged by Students'</p>	<p>Having an intrinsic curiosity in the subject.</p> <p>Being determined to do well and mentally engaging when doing academic work.</p> <p>Having the appropriate background knowledge for a sound foundation.</p> <p>Having time to pursue interests, through good time management.</p>	<p>Studying a degree for the qualification and not being interested in the subject.</p> <p>Not focussing on academic areas, but emphasising others (e.g. social, sport).</p> <p>Lacking background knowledge and understanding necessary to understand material.</p>	<p>Choosing the subjects/specialisations where they get high marks easily. Extrinsic motivation.</p> <p>Wanting to receive high marks and other external rewards (scholarships etc.) Driving to succeed.</p> <p>Paying attention to the teachers's requirement and to their own assessment.</p>

	<p>Positive experience of education leading to confidence in ability to understand and succeed.</p>	<p>Not enough time / too high a workload.</p> <p>Cynical view of education, believing that factual recall is what is required.</p> <p>High anxiety.</p>	<p>Good time management. Using efficient learning techniques.</p> <p>Pragmatic view of education and learning Results oriented.</p>
<p>Encouraged by Teachers'</p>	<p>Showing personal interest in the subject.</p> <p>Bringing out the structure of the subject.</p> <p>Concentrating on and ensuring plenty of time for key concepts.</p> <p>Confronting students' misconceptions. Engaging students in active learning.</p> <p>Using assessments that require thought, and requires ideas to be used together.</p> <p>Relating new material to what students already know and understand.</p>	<p>Conveying disinterest or even a negative attitude to the material.</p> <p>Presenting material so that it can be perceived as a series of unrelated facts and ideas.</p> <p>Allowing students to be passive.</p> <p>Assessing for independent facts (short answer questions).</p>	<p>Providing feedback only by means of marks.</p> <p>Not being aware that the educational environment that they created and coordinate leads to a certain students' approach to learning.</p> <p>Creating a competitive educational environment.</p>

	<p>Allowing students to make mistakes without penalty and rewarding effort.</p> <p>Being consistent and fair in assessing declared intended learning outcomes, and hence establishing trust</p>	<p>Rushing to cover too much material.</p> <p>Emphasizing coverage at the expense of depth.</p> <p>Creating undue anxiety or low expectations of success by discouraging statements or excessive workload.</p> <p>Having a short assessment cycle.</p>	<p>Appreciating the students who receive the highest grades.</p>
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We believe that the first two dimensions (deep approach and surface learning) find their foundation in the psychology of learning and development. The strategic approach is legitimate, as a category, by the learning management principles, referring to planning, organizing, monitoring, performance evaluation. We believe that the juxtaposition of the latter one, has been made somewhat artificial, because the „strategic learners” can meet the characteristics of learning in both depth and surface manner, depending on the educational environment created by the teacher. Deep approach to learning and especially strategic approach to learning involve students' good knowledge of the task, and of the ways of solving them efficiently. They also mean good planning skills, the monitoring and assessment of the resources and processes involved in learning. The premises for metacognition are thus created.

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