

## **Learners Today, Teachers Tomorrow: Teacher Trainees' Approach to Learning**

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### **Abstract**

It is of major relevance in this modern day in any field of study to make teaching and learning more effective. To fulfill this need there are a few questions that need to be addressed: How can learning be optimal among learners? Do the learning approaches they use bring about higher academic performance? In this context this paper investigates the learning approaches and determines the relationship between study strategies and academic performance among 120 Indian teacher trainees during their first year of study from the College of Education, Visakhapatnam. This study utilised Bigg's Revised Two-Factor Study Process Questionnaire (R-SPQ-2F) developed by Biggs et al (2001). The data was analysed by using SPSS for correlations and ANOVA to measure surface and deep approach among the participants. The results showed that participants who used the deep approach to learning had a positive result on academic performance. These findings of this small scale research will have an outstanding importance, as they will provide an interest for more research in this area.

**Keywords:** Teacher trainees, strategies, approaches, learning, R-SPQ-2F

### **Introduction**

Understanding and identifying how learners use effective strategies to enhance language skills is vital in education. In order to create a learning environment which helps learners achieve their full potential, it is important to understand the way they approach their learning, and this relates to the quality of his or her learning. The learning approach can be described as what learners usually do while learning and studying (Entwistle & McCue, 2004). It has emerged through

research that learners engaged in deep approach seem to be more intrinsically motivated leading to better learning outcomes that is necessary for learning. Very little research has been conducted on students in Andhra Pradesh and this paper would like to determine learners' approach to learning and to explore if their learning approach is related to the result of their final exam.

### **Theoretical Framework**

To understand learning approaches and learner academic performance, it is important to look into the theoretical framework.

### **Learner Approaches**

- a) 3P Model (Presage, Process, and Product)
- b) Approaches to Learning (Surface, Deep and Achieving)

How learners approach learning has been a topic of substantive research around the world and there is at the same time a lot of evidence that individual differences exist in how students approach learning. The outcomes in turn have an enormous influence on learning and teaching contexts. Perhaps, the best and widely used framework that highlights the approaches to learning from the learners' perspective is the paradigm of Students' Approach to Learning (Biggs, 1987a; Biggs, 1987; Biggs, 1987c; Marton & Saljo, 1976). This theory was derived through a bottom-up process partly due to some dissatisfaction with the IP models of learning (Biggs, 1987a, 1993). The present study is based on Biggs' (1979, 1987, 1992) theory of learners' learning approaches. The initial dichotomy and relation between learning approaches and academic achievement is well established (Betoret & Artiga, 2011; Biggs, Kember, & Leung, 2001; Brunborg & Larsen, 2010; Trigwell & Prosser, 1991). Thus, as Biggs, Kember and Leung defined it, "an approach to learning describes the nature of the relationship between, student, context and task" (2001, p.137). In the simplest understanding, it is the approaches students go about their academic tasks and it depends on the courses they are studying in a particular environment.

This approach to learning paradigm was first defined and provided by Swedish researchers Marton and Saljo in the 1970s and is one of the most widely used framework for understanding how learners go about their learning. The origin of approaches to learning by Marton and Saljo began in a well-known study in which learners were asked to read a passage and were tested later (Marton & Pang, 1999; Tickle, 2008) and it demonstrated how, "differing outcomes of learning could be attributed to contrasting intentions- either to develop personal understanding or simply to cope instrumentally with the immediate task requirements" (Entwistle, 1998, p. 73). Marton and Saljo described deep learning as learners with the ability to comprehend better, and compose meaning and understanding, while surface learners comprehended a little of the task and exhibited minimum engagement.

The three learning approaches outlined by Biggs (1979, 1987a) combine learning motive and learning strategy. Learners employ various approaches and they use different strategies in the process of acquiring new information. This process of how students “go about learning”, this unique learning experience that shapes their learning eventually came to be known as the Students’ Approaches to Learning (SAL) theory (Biggs, 1987a, 1993; Entwistle & Waterstone, 1988). Thus, based on this theory, Biggs (1987) developed the SPQ that focuses on the learning approaches of students in higher education. This SPQ (1987) was selected to best encompass the goals in this study of the three approaches to learning.

Studies related to SAL on learning have focused primarily on how secondary and university students learn in a formal, institutional context (Biggs, 1999a). The SAL approach further emphasises on the context within which learning occurs and argues that learning does not take place in a vacuum (Biggs, 1987a, 1993, 1999a, 1999b; Biggs & Moore, 1993). School children and fresh undergraduates have been predominantly targeted in studies adopting SAL theory (Merriam & Caffarella, 1999; Richardson, 1995; Sutherland, 1995).

The SAL approach has progressed through time using two major research pathways- the phenomenography or naturalistic and qualitative experimental method (Marton & Booth, 1997) and the constructive based quantitative approach and a systems theory approach (Biggs, 1999a; Dart & Boulton-Lewis, 1998). The common thread between these two theoretical perspectives is that learning is created by the learners’ learning activities and not through the teachers’ instruction (Biggs, 1999b). The qualitative paradigm also focuses on the different ways in which learners experience or conceptualise learning. In contrast, the quantitative approach focuses on the learning process, the manner learning activities are achieved as exemplified in the Study Process Questionnaire (SPQ). A learner who adopts Surface Approach usually perceives learning as reproduction of knowledge and may result in outcomes that are disjointed and personal meanings that are unproductive and undeveloped. On the other hand, a learner who uses a Deep Approach might perceive learning as a meaning making process and that in turn yields more meaningful outcomes. Henceforth, in line with these two paradigms of learning, Surface Approach is discouraged, and Deep Approach is encouraged. This discussion of SAL theory is adapted to investigate learning in the Andhra Pradesh education context.

Learners’ approaches to learning are interweaved with conceptions of learning, motivational orientations and regulation of learning and the results of these variables are referred to as learning styles (Entwistle & Ramsden, 1983; Lonka 1997; Vermunt, 1998; Mäkinen et al., 2004)

The three approaches underpinning learners’ learning are defined as follows in *Motive and Strategy in Approaches to Learning and Studying*:

<b>Approach</b>	<b>Motive</b>	<b>Strategy</b>
<b>Surface</b>	Deep motive is Extrinsic: to meet requirements with minimum work, a balancing act between failing and working more than is necessary.	Surface strategy is to limit target: to bare essentials and reproduce them through rote learning. Focus on selected details and reproduce accurately.
<b>Deep</b>	Deep motive is intrinsic: to satisfy curiosity about topic; to develop competence in particular academic subjects.	Deep strategy is to maximize understanding: read widely, discuss, reflect by interrelating with previous relevant knowledge, etc.
<b>Achieving</b>	Achieving motive is to enhance ego and self-esteem: compete for highest grades whether or not material is interesting.	Optimize organization of time and effort; to follow up all suggested readings, schedule time, behave as a model student.

From *Student Approaches to Learning and Studying: Study Process Questionnaire Manual*, by J.B. Biggs, 1987

### **General Model of Student Learning**

The above table explains the motive and strategy in approaches to learning and studying where three motives and three strategies are defined, and when combined together are the approaches to learning. Besides this model, there is the general model of student learning that conveys the relationship between Presage, Process and Product. With Dunkin and Biddle's original teaching model, Biggs also came about with the 3P model of teaching and learning. This model includes the Presage – before the teaching takes place, the Process – during the teaching, and the Product – the outcome of the teaching.

### **Presage**

The presage level is the first level of the 3P model and contains attributes that the learners bring with them such as prior knowledge, abilities and motivation as well as preconceived ideas that they have about learning and how they plan to approach it. The Presage level also contains the teaching context such as the current curriculum, method of instruction, classroom and institutional climate, and assessment and evaluation techniques. In short, it concerns experiences before the actual learning takes place. According to Biggs (1987) the personal factors are age, experience, and the level of parental education.

### **Process**

The process level is the second level of the 3P model and determines the way a learner goes about the learning activities that actually occur such as the completion of specific tasks both

inside and outside the classroom. The process level also includes the approach that the learner takes towards the learning process and the completion of these tasks. It is here that the learner determines the learning strategies that will be used in approaching the task. The approach to learning that a learner takes is directly related to the learning outcomes and can adjust based on perceived expectations of the course assessments. In short, it pertains to strategies while learning takes place.

### **Product**

Product performance of the general model of learner learning refers to the outcomes after learning has taken place. These outcomes are generally included in syllabi, which are later measured in terms of assessment or accreditation.

### **R-SPQ-2F**

To investigate the learning approaches of trainee teachers a measurement tool that is appropriate is integral to this study. There are many questionnaires available to ascertain students' learning approaches or processes and motivation. Some of the questionnaires that are popular are the ASSIST, SPQ (Biggs et al 1987), R- SPQ-2F (1987).The revised two-factor Study Process Questionnaire (R-SPQ-2F) (Biggs et al, 2001) was chosen as it was most appropriate for the current study. This was developed basically from research concerning how students approach their learning or studying. Initially, there were distinctive orientations of research-qualitative studies where two fundamental approaches to learning were investigated: Surface and Deep (Marton, Hounsell & Entwistle, 1984), and analytical studies added a third common approach which is the achieving approach (Biggs, 1987a; Entwistle & Ramsden, 1983). Surface approach is adopted when the students try to memorise materials rather than to understand what they are learning. On the other hand, students adopting a deep approach make an attempt to understand what they are learning and bring a link to their previous knowledge and personal experience. In addition, achieving approach involves those strategies that lead to high marks and is based on achievement motivation. These three approaches are important determinants of the quality of learning outcomes and integrate both motivational and strategic components on any particular task (Biggs, 1987a).

### **Objectives of the Study**

The main objective of this paper is to identify the approaches to learning used by learners and thereby understand the relationship between approaches to learning and academic achievement.

### **Instrument**

The Revised Study Process Questionnaire (R-SPQ-2F) containing 20 items was used to measure learning approaches among the 120 teacher trainees. As mentioned earlier, two main scales of learning approaches deep and surface, with four subscales namely deep motive, deep

strategy, surface motive and surface strategy were applied. Each of these subscales had five items and each item was rated on 5-point Likert scale. A self-report questionnaire was also used to gather information related to the objectives of the study.

Academic achievement was measured by the students' final grade is the Grade Point Average (GPA) in all subjects. The GPA was calculated by averaging the marks obtained during the semester.

### **Data Analysis**

The data were analysed using Students' t-test and analysis of variance. A commonly used method of analysing data which is SPSS was used. The Cronbach's alpha value (0.6) for 20 items of R-SPQ-2F was found to be acceptable for its use.

### **Findings**

The findings based on this study showed that the learners predominantly had a deep approach to learning and the influence of the deep approach on academic achievement seems to be modest. There could be a few variables that may affect the link between learning approaches and academic achievement.

### **Conclusion**

This study was done to examine approaches to learning among trainee teachers of colleges in and around Visakhapatnam. The results revealed that the majority of the learners inclined towards using deep and strategy approaches to learning. This finding is congruent with Biggs (1987a) studies. It can be determined that learners who used this strategy scored high in the GPA related to language skills.

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