

APPROACHES TO LEARNING OF GREEK BUSINESS STUDENTS

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Abstract

Accounting education research indicates that the approach to learning is a significant factor affecting the quality of learning. This is the first study undertaken in Greece examining the approaches to learning adopted by accounting and management students in their study of financial accounting. Data regarding deep and surface approaches to learning were collected from business students studying at two Greek ATEIs using the Revised Two Factor Study Process Questionnaire (R-SPQ-2F). At the same time various attitudinal variables were taken into account. Finally, factors such as gender, educators and departments are specifically considered in this study.

Περίληψη

Η έρευνα στη Λογιστική εκπαίδευση έδειξε ότι η προσέγγιση στη μάθηση είναι ένας σημαντικός παράγοντας που επηρεάζει το ποιοτικό αποτέλεσμα της μάθησης. Αυτή είναι η πρώτη μελέτη που πραγματοποιήθηκε στην Ελλάδα εξετάζοντας τις προσεγγίσεις στη μάθηση που υιοθετούνται από τους σπουδαστές τμημάτων Λογιστικής και Διοίκησης επιχειρήσεων κατά τη διάρκεια της μελέτης της Χρηματοοικονομικής Λογιστικής. Στοιχεία σχετικά με τη βαθιά και επιφανειακή προσέγγιση στη μάθηση συγκεντρώθηκαν από σπουδαστές που φοιτούν σε δύο Ελληνικά Τεχνολογικά Ιδρύματα, χρησιμοποιώντας το Revised Two Factor Study Process Questionnaire (R-SPQ-2F). Επίσης, ποικίλες μεταβλητές της συμπεριφοράς καθώς και παράγοντες όπως το γένος, οι καθηγητές, το τμήμα σπουδών συμπεριλήφθηκαν στη εξέταση των διαδικασιών μάθησης της Χρηματοοικονομικής Λογιστικής.

Keywords: Learning approaches, first accounting course, business students, R-SPQ-2F.

1 Introduction

Many academics have highlighted that students learn in different ways (Beattie, Collins and McInnes, 1997; Davidson, 2002). Furthermore, several studies have indicated how important is for academics to understand how students learn. The importance of approaches to learning in Higher education has been emphasized by many researchers. The concept of approach to learning is “a key concept in teaching and learning” (Ramsden, 1992, p.39).

Davidson (2002) argued that the quality and quantity of learning outcomes is influenced by students learning approaches. Approaches to learning have been investigated more than fifty years (Ryle, 1949; Entwistle and Ramsden, 1983; Biggs, 1987a, 1987b). Marton and Sajlo (1976a, 1976b) were the first to introduce the concept of learning approaches by studying how students perceived and learned a particular reading task. They came up with the powerful idea of approach to learning, which became the point of departure for the emerging conceptual framework known generically as “student approaches to learning (SAL) theory” (Biggs et al, 2001)/

This is the first study to investigate approaches to learning of Greek business students and to identify differences between accounting and management students using a well established theory. The Revised Two Factor Study Process Questionnaire (R-SPQ-2F) introduced by Biggs et al.(2001) was used by comparing R-SPQ-2F scores of accounting and management students who were following an introductory accounting course.

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This paper, involving Greek accounting and management students, has the following specific objectives:

- to explore management and accounting students' approaches to learning in the first accounting course;
- to identify similarities and differences in the approaches to learning between management and accounting students;
- to identify similarities and differences in the approaches to learning between male and female students
- to examine the relationships between students' learning style and their approaches to learning
- to investigate the relationship of prior academic achievement and approaches to learning

The remainder of this work is structured as follows. The next section presents prior research on accounting and business students' approaches to learning and introduces the theoretical framework for the study. This is followed by the research methods used; then the results of the statistical analysis are analyzed and discussed. Finally, the implications of the research study and practice are presented and scope of further work identified.

2 Literature Review

One of the basic concepts which have arisen from accounting literature the last decades on accounting education is the need to move towards a conceptual form of learning (AAA, 1986; Arthur Andersen et al, 1989; IMA, 1999; Mathews, 2001; Tippet, 1992; Adler & Milne, 1997; Kelly et al, 1999; Parker, 2002, 2007; Howieson, 2003; Carr & Mathews, 2004). Accounting graduates should develop skills and competencies necessary to become independent, lifelong learners. Marton and Saljo (1976) were the first to distinguish two approaches to learning, deep and surface. Deep learning approach is associated with a personal desire by the student to understand the subject and relate it to previous knowledge and experiences. Students with deep approach internalize learning and try to understand how knowledge represents reality. They relate evidence to conclusions, integrate ideas and examine the logic of the conclusions. In contrast, when a surface approach is adopted, students memorize and reproduce knowledge for the sake of the examinations. Learning is externalized. Students passively accept ideas and information and have no learning plan or strategy. Assessment requirements drive their learning route and desire (Sharma, 1997; Hassall and Joyce, 2001).

Approaches to learning constitute an absolutely critical concept for teachers to understand, since it affects how teachers teach. As Ramsden states (1992, p.45) an approach describes a relation between the student and the learning he or she is doing. When we try to change approaches, we are not trying to change students, but to change the students' experiences, perceptions or conceptions of something.

Numerous studies have indicated that instructors are able to influence students' approaches towards "deep" rather than "surface" learning by changing the learning environment and the educational and pedagogical context. Irrespectively of methodology undertaken, questionnaires or interviews, research studies have shown that the outcomes of students' learning are associated with the approaches they use. Approaches are related also to how much satisfaction students experience in their learning. Deep approaches are related to higher quality outcomes and better grades. They are also more enjoyable. Surface approaches are dissatisfying and associated with poorer outcomes (Ramsden, 1992).

The positive correlation between deep approaches to learning and academic performance has been stated by Entwistle and Ramsden (1983), Watkins and Hattie (1981), Biggs (1987). Studies by Duff (2004), Booth et al. (1999), Byrne et al. (2002) Ramburuth and Mladenovic (2004) have revealed also the positive association between deep approach and improved performance. Duff (2004) findings categorized students as "effective learners" with high scores on deep approach, academic self-confidence and high rate of progression (75%) and "ineffective learners" with high scores in surface approach and a very low rate of progression (11.7%). A set of interventions in the learning context in order to enhance deep learning of accounting students was examined by English et al. (2004). Intervention included writing skills development, use of case studies and examinations reinforcing critical thinking and analysis. The findings confirmed the effectiveness of the interventions in encouraging a deep approach and in improving overall course results. Hall et al. (2004), Adler et al. (2004), Boyce et al. (2001) elaborated on the strategic use of case studies in order to enhance generic skills development. Authors used SPQ (Biggs, 1987b) questionnaire to assess students' approaches change after the introduction of group learning activities. Results indicated that accounting students showed a small but statistically significant increase in their deep learning approach and a small but statistically significant reduction in their surface learning approach.

Study findings indicated that age is positively related to a preference for deep approach, suggesting mature students of more than 21 years old demonstrate a desire for academic learning and a positive influence on the course (Duff, 1999; Richardson, 1994; Richardson et al, 1999; Harper and Kember, 1986).

Gender differences have also been considered in the studies (Byrne et al. 2002; De Lange and Mavondo, 2004). Findings showed a different pattern on the learning approaches for male and female students. While females supported the proposition that there is a positive relation between deep and strategic approach and high performance, there was no significant evidence for male students. Hassall and Joyce (2001) found the opposite results with females scoring higher on the surface approach.

Lucas and Meyer (2004) used the RoLI (Reflections on Learning Inventory) questionnaire and their findings indicated that there are variations in conception and approach to learning between students who specialize in accounting and those who do not specialize in accounting and between male and female students.

Accounting students tend to decline the use of deep processing approaches as they progress in their studies with an increasing preference of convergent learning style (Gow et al, 1994; Brown and Burke, 1987). As Kolb (1995, p.54) explains “the converger seeks to apply acquired knowledge to specific problems for the purpose of problem solving and decision making. Convergents seek single, correct answers or solutions to a question or problem” Other researchers (Hall et al, 2004; Lucas and Mladenovic, 2004) showed in their studies that intervention in the learning environment, although increased the deep strategies did not significantly reduce the use of surface strategies. In accounting, students must “learn terminology, basic concepts, and procedures before being able to apply knowledge to novel problems and reflect/evaluate on the appropriateness of various treatments and methods” (Hall et al, 2004, p.502.)

3 Theoretical Framework

The concept of “learning approaches” was examined in the 1970s and the 1980s independently by the following research groups: the Lancaster Group led by Entwistle, the Australian Group led by Biggs, the Swedish Group led by Marton, and the Richmond Group led by Pask.

The Australian Group – Biggs

This group developed a model (the “3P” model of teaching and learning) (Figure 1) in which the study process is an intermediate stage between presage factors and product factors. Presage factors are identified as personal and institutional characteristics and exist before student starts studying. Examples of personal characteristics are the cognitive style, IQ, personality and home background of each student. Institutional characteristics are the subject area, teaching method, assessment method and course structure, institutional climate and procedures. Product factors can be either objective (i.e. examination marks) or subjective (satisfaction with performance attained).

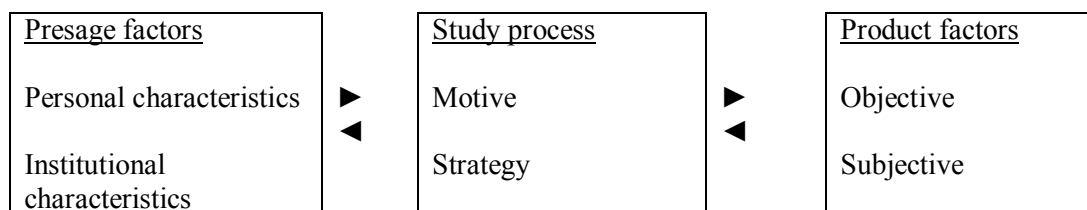


Fig.1. Biggs' (1978) learning model adapted from Beattie et al, 1997

In the 3P model, student factors, teaching context, on-task approaches, and the learning outcomes, mutually interact, forming a dynamic system. Presage factors can affect product factors by affecting the study process. The academic performance of students can be affected by the motives that students have or by the strategy students adopt in their approach to learning. Motives and strategy of students are affected by personal and institutional characteristics. Each factor depends on every other factor, so that for example the student's preferred approach will adjust to the specific context and course being taught and to the success or not of the outcome.

According to Biggs different types of motives and strategies can produce different types of learner but possibly with similar success in their studies. In the following table the study process is presented through

the motives of learning a task and the strategies undertaken to accomplish the task. The learner type of student comes as a result of the motive-strategy combination (deep, surface, achieving).

Table 1 Impact of motive and strategy on approach to learning.

Study process		Approach to learning
Motive	Strategy	
Main purpose is to meet minimum requirements: need to achieve balance between working too hard and failing	Reproductive: limit target to bare essentials and reproduce through rote learning	Surface
Studies to realise interest and competence in particular academic subjects	Reads widely with previous relevant knowledge	Deep
Competitive: tries to obtain highest grades whether or not the material being studied is interesting	This is the “model” student: organises time and working space	Achieving

Deep and surface approach identify the ways which students undertake in order to realize a task whereas the achieving approach describes the way in which students organize their time and working environment. Mixed approaches to learning can sometimes be adopted. For example:

Surface-achieving strategy (rote learning in a highly organized way),

Deep-achieving strategy (reading for meaning in an organized way),

According to Biggs (2001) there are possible interactions between student perceptions and teaching demands. A student that engages in rote learning may find that this strategy will not work under portfolio assessment, so will have to undertake deep studying. A student, who usually engages in deep learning, may decide to go surface in a course that is overloaded with content and assessed by Multiple Choice Questions. (Biggs et al, 2001, p5).

R-SPQ-2F questionnaire

Biggs developed the Study Process Questionnaire (SPQ) to test 3P model on higher education students in the late 1970s. Later appeared the need for a shorter two-factor version of the SPQ. Biggs, Kember and Leung (2001) produced The Revised Two Factor Study Process Questionnaire (R-SPQ-2F) using a process of testing and refinement and arrived in deep and surface motive and strategy scales each with 5 items, 10 items per approach score. The final version was tested using reliability procedures and confirmatory factor analysis. The sample for the final version consisted of 494 undergraduate students from a variety of departments in the same university.

4. Research Method

4.1 Sample and data collection

Greek post-secondary education is divided into university-level and non-university (but still tertiary-level) education and this is offered by the Higher Technological Educational Institutions (ATEIs). The degrees in Accounting and Business Administration awarded by ATEIs have four-year duration, divided into eight independent semesters. During the first semesters of their studies, students take general business science courses such as Economics, Financial Accounting, Management Accounting, Maths, Statistics, Law and Information Technology, as well as introductory courses on business administration and management. The data for this study were collected via questionnaires that were administered to two different groups of Greek business students attending the first accounting course (hereafter FAC). The data collection was anonymous. The students participating in the study completed the questionnaires during class time and questionnaires were collected immediately upon completion. The first group consisted of full time accounting students attending the ATEI-Piraeus attending classes contacted by two different accounting educators (educator A and educator B). The questionnaire was also administered to another group of full time management students

attending the ATEI-Athens and ATEI-Piraeus, attending classes conducted by two different accounting educators (educator C and educator D). After checking for internal consistency and verification, of the 416 questionnaires received, 368 were deemed usable, with 204 from accounting students and 164 from management students. This gave a participation rate of 85%. The unusable questionnaires were incomplete. Approximately 28% of the students were 19 years old, 26% 20 years old, 21% 21 years old 22% older than 21 and 2% younger than 19 years old. From the students 35% was at the first academic semester, 24% was at the second academic semester, 20% was at the third and fourth semester and 21% was at the last four semesters of their studies. The sample consisted of 52% students from Athens, 42% students from other parts of Greece and 6% students from a diverse range of countries. From the sample 41% declare sensing learners, 21% declare intuitive learners and 38% declare in between sensing and intuitive learners.

The department, gender, and age structure of the sample population is shown in the following tabulation.

Table 2 Structure of Department, Gender, and Age of Sample

	Accounting Students	Management Students	Total
Number	204	163	367
Male	87	75	162
Female	117	88	205
Average Age (Min-Max)	18-40	18-36	

4.2 The instrument

The instrument used in this study to measure the students' approaches to learning is divided into two sections as follows:

Part I of the questionnaire gathered students' demographic information, i.e., gender, age, origin, transfer degrees, learning style, department and typical semester of their studies.

Part II of the questionnaire consisted of the R-SPQ-2F developed by Biggs (2001). The R-SPQ-2F contains 20 items and was answered on a 5-point Likert scale as follows: (1) this item is never or only rarely true of me (2) this item is sometimes true of me (3) this item is true of me about half the time (4) this item is frequently true of me (5) this item is always or almost always true of me.

In this research, the R-SPQ-2F was used to investigate both students' approaches to learning at the first accounting course and to examine differences between accounting and management students as these can serve as indicators in a number of research contexts (English et al., 2004).

Students' responses to the R-SPQ-2F were aggregated following the procedure in Biggs (2001). The reliability of the R-SPQ-2F in this research was assessed using Cronbach alpha with values calculated for each learning approach subscale (motive and strategy) and each learning approach scale (deep and surface).

Responses were initially aggregated into the deep motive and deep strategy subscales of learning approaches. The matched deep motive (the deep motive subscale consists of 5 items and the range of possible scores was from 5 to 25, midpoint 15) and deep strategy (the deep strategy subscale consists of 5 items and the range of possible scores was from 5 to 25, midpoint 15) subscales were further aggregated resulting in an overall deep approach scale. The deep approach scale consists of 10 items. The range of possible scores was 10 to 50, midpoint 30. Cronbach α for the present sample was 0.71.

The same procedure was used for surface motive and surface strategy subscales of learning approaches. The matched surface motive (the surface motive subscale consists of 5 items and the range of possible scores was 5 to 25, midpoint 15) and surface strategy (the surface strategy subscale consists of 5 items and the range of possible scores was 5 to 25, midpoint 15) subscales were further aggregated resulting in an overall surface approach scale. The surface approach scale consists of 10 items. The range of possible scores was 10 to 50, midpoint 30. Cronbach α for the present sample was 0.70.

5. Analysis and Results

5.1 Descriptive analysis of questionnaires

The purpose of using the R-SPQ-2F questionnaire was to measure Greek Accounting and Management students' approaches to learning (accounting). The analysis of questionnaires (Table 4) suggests that overall Business students (Accounting and Management students) have a deep approach to learning in the FAC although the result is not statistically significant (Mean= 30.01). Further analysis revealed that the Accounting department has a mean for the deep approach scale of 30.44 indicating deep learners while the Management department has a mean of 29.79 in the surface approach scale indicating surface learners. In order to test the significance of the scores one sample t-tests were carried out. The mean scores for the sample of Accounting students (30.44 deep learners) and the mean score for the sample of Management students (29.79 surface learners) are not significantly different than 30 which is the mean score of the scale ($p=.246$ and $p=.673$ respectively)

The analysis indicates that accounting and management students in Greece are neither deep nor surface learners. In order to further explore this result for the accounting students further tests were carried out regarding the subscales that define deep motive and deep strategy. The mean for the deep motive subscale (16.02) is higher than the mean score of the scale and it is significantly different ($p<0.000$). However the mean for deep strategy subscale (14.38) is lower than the mean score of the scale and it is significantly different ($p=0.002$). This implies that accounting students have deep motives to learn accounting but they indicate that they have a surface strategy. Accounting educators in order to engage student in a deep learning approach should employ appropriate techniques to improve the learning strategy of students.

In order to further investigate this result for the management students tests were carried out regarding the subscales that define surface motive and surface strategy. The mean for the surface motive subscale (13.45) is lower than the mean score of the scale (15) and it is significantly different ($p<0.000$). However, the mean for surface strategy subscale (16.38) is higher than the mean score of the scale and it is significantly different ($p<0.000$). This implies that management students while they employ a surface strategy they do not have a surface motive to learn accounting.

Table 3 R-SPQ-2F summary statistics

Variables	Total sample		Accounting students			Management students		
	Mean	Std. Deviation	Mean	Std. Dev.	Sig (2-tailed)	Mean	Std. Dev.	Sig (2-tailed)
Deep Motive	15.63	3.26	16.02	3.19	0.000	15.13	3.29	0.628
Deep Strategy	14.41	2.94	14.38	2.83	0.002	14.46	3.09	0.028
Surface Motive	12.96	3.67	12.57	3.63	0.000	13.45	3.69	0.000
Surface Strategy	16.08	3.28	15.82	3.12	0.000	16.38	3.46	0.000
Deep Approach	30.01	5.33	30.44	5.28	0.246	29.49	5.34	0.237
Surface Approach	29.00	6.03	28.36	5.92	0.000	29.79	6.10	0.673

5.2 Similarities and differences between departments

To examine whether these differences between the two groups are statistically significant for all subscales, a series of t-tests was performed. The results (Table 4) show no statistically significant differences in deep strategy and surface strategy and in deep approach to learning between accounting and management students. However, there is a statistically significant difference in the score of the deep motive surface motive and surface approach to learning.

Table 4 Differences between Departments

Variables	Department	Mean	Std. Deviation	Sig. (2-tailed)
Deep Motive	Accounting	16.02	3.19	0.009*
	Management	15.13	3.29	
Deep Strategy	Accounting	14.38	2.83	0.806
	Management	14.46	3.09	
Surface Motive	Accounting	12.57	3.63	0.024*
	Management	13.45	3.69	
Surface Strategy	Accounting	15.82	3.12	0.108
	Management	16.38	3.46	
Deep Approach	Accounting	30.44	5.28	0.097
	Management	29.49	5.34	
Surface Approach	Accounting	28.36	5.92	0.028*
	Management	29.79	6.10	

5.3 Differences between accounting educators

Educators have a positive or negative influence on students' learning and performance. Statistically significant differences were found only on the subscale of deep and surface motive subscales between two educators one teaching in a management class (educator C) and the other in accounting class (educator A).

5.4 Differences between other demographic characteristics

Gender

A comparison of the scores for the scales and subscales (see Table 5) shows that female students have a higher score on the deep approach to learning scale than males. The difference is statistically significant ($p=0.027$) as shown by an independent samples t-test. This difference can be explained by the female scores on deep motive subscale and the deep strategy subscale. The difference is statistically significant on the deep motive subscale ($p=0.016$) as shown by an independent samples t-test. It should be pointed out that the male business student have a surface approach in studying accounting but this difference is not statistically significant ($p=0.568$).

Table 5 Differences between males and females

Variables	Gender	Mean	Std. Deviation	Sig. (2-tailed)
Deep Motive	Female	15.9950	3.17253	0.016*
	Male	15.1625	3.31925	
Deep Strategy	Female	14.5882	2.74841	0.186
	Male	14.1761	3.17533	
Surface Motive	Female	12.6667	3.42685	0.084
	Male	13.3418	3.94351	
Surface Strategy	Female	16.1931	3.25643	0.441
	Male	15.9236	3.31187	
Deep Approach	Female	30.5578	4.93446	0.027*
	Male	29.3057	5.72070	
Surface Approach	Female	28.8384	5.91429	0.568
	Male	29.2092	6.18216	

Learning Style

To help measure students' learning style and its relationship with the learning approaches, they were asked to indicate their learning style (sensing, intuitive and mixed). No differences were observed between the different learning styles as those were declared by the students and the learning approaches. For that analysis the one way ANOVA test was employed.

Transferred and non transferred students

Students in Greece can transfer their degree and studies from one university to another. This is allowed mostly to students of low income and those that belong to families that have three or more children. Although this seems a reasonable policy, it results in a large number of students being transferred from departments where the admission scores are low to departments with high admission scores. Low admission departments are mostly located away from Athens. In some cases the number of students been transferred exceeds the number of students that initially were admitted in the department.

The transferred students have lower entrance grades since they were admitted to educational institutes in the province. For the sample populations the transferred students exceed the non-transferred by almost 38% (153 students were originally admitted while 211 were transferred). Statistics collected from the files of transferred students show that the prior academic achievement scores in the secondary school range from 10.0 to 12.0 (with 20 maximum) while for the non-transferred student the same scores range from 14.0 to 16.5.

In order to further investigate differences between transferred and non transferred students, i.e. between high and low performance students, comparison tests were carried out regarding the scales and subscales that define the learning style. The mean score for deep motive and deep strategy subscales for the non-transferred students is higher than the same scores for transferred students (but not statistically significant). Also the mean score for the deep approach scale is higher for the non-transferred students than the same scores for transferred students (but not statistically significant).

However the opposite is true for the subscales and scale that define surface learning. The mean score for surface motive and surface strategy subscales for the transferred students is higher than the same scores for non-transferred students. The difference is close to statistically significant for the surface motive subscales ($p=0.050$). Also the mean score for the deep approach scale is higher for the transferred students than the same score for non transferred students. The difference now is statistically significant ($p=0.029$).

This is an indication that the learning approach of students that have low prior academic performance is surface motive while high performing students have a preference for deep motive and deep approach.

Table 6 Differences between transferred and non-transferred students

Variables	Transferred	N	Mean	Std. Deviation	Sig. (2-tailed)
Deep Motive	Yes	205	15.46	3.31	0.272
	No	152	15.84	3.21	
Deep Strategy	Yes	209	14.26	2.85	0.368
	No	150	14.55	3.06	
Surface Motive	Yes	205	13.27	3.40	0.050*
	No	150	12.51	4.02	
Surface Strategy	Yes	208	16.28	3.13	0.145
	No	147	15.76	3.49	
Deep Approach	Yes	203	29.67	5.21	0.210
	No	149	30.40	5.48	
Surface Approach	Yes	203	29.57	5.52	0.029*
	No	144	28.13	6.65	

6. Conclusions and further research

The aim of the current study was twofold: firstly to identify the learning approaches undertaken by undergraduate students in Greece during their study of introductory accounting course and secondly to investigate relationships between approaches to learning, gender, students' learning style, and prior academic achievement. Our sample included two cohorts of students coming from two different departments: accounting department students and management department students from two different Institutions (ATEI Piraeus and ATEI Athens).

Results based on R-SPQ-2F questionnaire indicated that overall sample of students is oriented towards deep learning approach though this is not statistically significant. This result reveals a mixed preference of students for both approaches which is consistent with other studies' results (Birkett and Mladenovic, 2002; Hall et al. 2004). In some learning contexts, like accounting, lower level strategies are required in order to progress to higher level of comprehension. In accounting courses, students need primarily to learn terminology, basic concepts and procedures which they will be able to apply in a later stage in order to evaluate and critically reflect on various problems and treatments as they arise (Hall et al. 2004). In a comparison between the two departments, accounting students showed an overall deep approach. They scored high on deep motive but simultaneously they scored high on surface strategy. Management students employed surface approach though not statistically important. They scored high on surface motive and high on surface strategy too. It is obvious from results that accounting students have the motivation to learn but they fail to use the proper learning methods and this is a statistically significant result. Management students have neither the motive nor the strategy to study accounting. Surface strategy is engaged also by the total sample of students.

Overall results confirm employment of low level strategies by all students. Thus becomes apparent the need for teachers to reflect on how they will introduce students to new teaching context (teaching methods, assessments) which will support them to shift towards higher learning levels. There are no differences on the scores of the main variables in relation to the educators and the students' learning styles.

Examination of a typical Greek situation was performed for the transferred students which revealed the expected findings concerning their preferred learning approach in relation to their prior academic achievement. The present study revealed that non transferred students (with higher entrance qualifications) engage in a deep learning approach and their scores are all better in the subscales (deep motive and deep strategy) though not statistically significant. On the contrary transferred students (with lower entrance qualifications) show preference for surface approach and their scores are higher for both surface motive and surface strategy.

Analysis for gender showed that females have preference for deep learning approach and they score higher on deep motive scale and on deep strategy scale. There is no consistent evidence from studies which tested for gender differences in approaches to learning (Richardson and King, 1991; Hassall and Joyce, 1997; Byrne et al, 1999; Michael and Marriott, 2008; Duff, 2004).

The present study has two limitations which are suggestive for future research. First, it uses a sample which comes from two different Educational Institutions, each one of them creating its own educational environment and carrying its own ethos. Theory suggests that, educational context, ethos and institution climate are factors affecting learning approaches. A second limitation could be the possibility that sample included students who attended the specific course for a second or third time or more, since there is no regulation prohibiting students to attend a class or take exams as many times as they wish, given they have failed in previous attempts. There are indications from previous studies that the approaches to learning change over time

Definitely a wide range of future research issues could contribute to our knowledge regarding Greek students' learning approaches and consequently support teachers in our effort to promote high level outcomes. Among them we would suggest the investigation of the relation between learning approaches and performance, the exploration of teaching interventions on learning engagements in relation to outcomes, comparison of ATEI and University students' learning approaches, approaches to learning and students' perceptions about accountants.

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