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University students' comprehension difficulties in accounting subjects and their reasons

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Abstract

This research aims at determining the comprehension difficulties of senior year students in accounting subjects of the faculty of economic and administrative sciences and the reasons for these difficulties. The subjects in the curriculum of the courses related to accounting were collected under 21 headings and 137 senior year students in the faculty of economic and administrative sciences were asked about their comprehension difficulties in these subjects and the reasons for these using a questionnaire. The subjects that these students have the most difficulty in comprehending were determined as: cost calculation systems, financial management, the inventory process, accounting standards, financial statement analysis and cost accounting. The primary reasons for comprehension difficulties were indicated as: the subjects being maths-intensive, based on rote learning and memorization and not inclusive of adequate case studies.

Keywords: Accounting education; Accounting students; Accounting subjects; Comprehension difficulties

1. Introductıon

The most efficient way of increasing the competence and qualities of accountants is to use the most efficient teaching method for each subject. Therefore, the quality of undergraduate education is crucial. The basic elements of undergraduate education can be listed as: the types of courses, the course content, the way the course is practised, the course materials, the equipment and environment and the students and the lecturers.

A large amount of research has been conducted on the teaching of accounting subjects. This research provided lecturers with literature that covers various teaching tecniques and methods.

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Williams [1] conducted research about how accounting education should be carried out and which sources can be used in this education. The research conducted by Stivers et al. [2] evaluated postgraduate-level accounting courses. The courses taught were examined under sub-headings. This research provides practical knowledge about applied subjects and presents various standard tests and special sources that exist in the literature. Moreover, the researchers determined evaluation processes and methods for accounting courses, and how the results of these should be used efficiently.

Boyd and others [3] tried to develop different methods to enable students to comprehend the subjects better. Cheng and Chen [4] carried out research on the learning and attitudes towards learning of 98 accounting students in Taiwan. The aim of the research conducted by Baird and Narayanan [5] was to evaluate the efficiency of the changes made to increase the students' performance in administrative accounting in the universities of Australia.

Examining the previous research on accounting education reveals that most of the researchers assert that using modern teaching strategies instead of traditional methods has an important effect on the students.

Traditional methods are generally teacher-centred methods like lecturing or solving problems. In those kinds of methods, the course content, materials and assessment techniques are determined by the teacher and the lessons are carried out by the teacher alone and by lecturing [6]. According to this, in traditional methods, teaching is the transfer of the knowledge from the teacher's notes to the students' notes without any kind of logical thinking or effort [7].

The strategies determined by Bonwell and Eison [8] using modern teaching methods are important for accounting education. These strategies can be summarized as follows:

– Transfering the course content using visual materials (like video, multimedia, slides),
– Using strategies that promote students to write (taking notes, summarizing the lesson, writing a composition about a solved problem) besides lecturing,
– Using computers in teaching in a laboratory environment,
– Promoting students to solve problems by using case studies,
– Using teaching strategies based on animations, simulations and games,
– Accomodating students in group work using colloborative teaching methods.

In this context, students' comprehension difficulties in accounting subjects and the reasons for these are very important for accounting education. There is much research in the literature conducted with this purpose.

The literature presents research on comprehension difficulties and the reasons behind them conducted by Johnstone and Mahmoud [9], Chiappetta and Fillman [10], Bahar et al. [11], Dikmenli [12]; Capa [13]; Gurkan and Gokce [14], Tekkaya et al. [15], Yaman and Soran [16], and Gunes and Gunes [17].

The literature related to accounting also presents a large amount of research on accounting education, the comprehension levels of the lessons by the students, the efficiency of the teaching methods and suggestions for increasing the quality, carried out by Kalmis and Yilmaz [18], Kaya and Dastan [19], Ozpeynirci et al. [20], and Sayin et al. [21].

1. 1. Purpose

This research aims at presenting the comprehension difficulties of students of accounting subjects in the faculty of economic and administrative sciences and the reasons for these and emphasizing this subject at the tertiary education level.

2. Materials and Methods

The participants in this research are 137 senior year students of the faculty of economic and administrative sciences. The reason for choosing these students is that they have studied these subjects and therefore have opinions about the difficulty level of these subjects.

First of all, the course books suggested as source books were examined and the subjects were determined before categorizing them under 21 headings. Besides these course books, the related literature was also examined in order to determine the subjects. In this context, research conducted by Kalmis and Yilmaz [18], Kaya and Dastan [19], Ozpeynirci et al. [20], Sayin et al. [21], and Guney [22] was determinant while designating the variables that may cause comprehension difficulties.

Two questionnaires were applied to the students. The first included the subjects and a three-point Likert scale in order to determine the students' level of comprehension of these subjects. The options were "easy to comprehend, hard to comprehend, I don't comprehend at all". The second questionnaire was used in order to designate the reasons for the comprehension difficulties (Tables 1 and 2). The students were asked to choose one of the given options as the reason for their comprehension difficulties. The options were: "does not include group work, the instructor is unqualified, the sources are inadequate, based on memorization, the subjects are maths-intensive, does not include visual aids; and does not include adequate case studies".

3. Findings

The students' comprehension level of accounting subjects is shown in Table 1. Analysing the 21 headings in Table 1, 13 subjects are not comprehended by students, 6 subjects are hard to comprehend and 2 are easy for the students to comprehend.

The subjects that are not comprehended by students are listed respectively as follows: the cost calculating system (56.2%), financial management (55.3%), the inventory process (55.2%), accounting standards (54.7%), financial statement analysis (54.6%), cost accounting (54%), financial statements (46.7%), budgeting (44.7%), generally accepted accounting principles (42.5%), the Turkish tax system (41.3%), the uniform chart of accounts (41.1%), accounting records (40.9%) and management accounting (38.9%).

The subjects that are hard for students to comprehend respectively are auditing (43.2%), the auditing process (42.8%), accounting categories (39.7%), corporate accounting and applications (39.4%), computerized accounting and applications (38.7%) and the accounting process (34.8%).

Finally, the subjects that are easy for students to comprehend are listed respectively as: primary basics of accounting (41.5%) and auditing reports (40.2%).

The reasons for the comprehension difficulties of students can be seen in Table 2. The rates indicate that 8 subjects are considered as being based on memorization, 7 do not include adequate case studies and 6 are seen as maths-intensive.

The subjects that students consider as based on memorization respectively are: the uniform chart of accounts (32%), auditing (31%), the auditing process (30%), auditing reports (29%), generally accepted accounting principles (27%), primary basics of accounting (27%), accounting standards (25%) and the Turkish tax system (20%).

The subjects that students think that they cannot comprehend because they think the lessons do not include adequate case studies can be listed respectively as: computerized accounting and applications (39%), accounting records (32%), accounting categories (27%), the inventory process (27%), corporate accounting and applications (26%), the accounting process (25%) and management accounting (20%).

Table 1. The comprehension level of accounting subjects (%)

Subjects	Easy to Comprehend	Hard to Comprehend	I don't comprehend at all
Account Categories	24.8	39.7	35.4
Accounting Process	32.6	34.8	32.6
Accounting Records	20.7	38.3	40.9
Accounting Standards	18.8	27.5	54.7
Auditing	35.4	43.2	21.4
Auditing Process	36.1	42.8	20.9
Auditing Report	40.2	39.3	20.1
Budgeting	20.6	34.4	44.7
Computerized Accounting and Applications	27.0	38.7	34.5
Corporate Accounting and Applications	29.3	39.4	31.5
Cost Accounting	17.2	28.7	54.0
Cost Calculation Systems	16.9	27.5	56.2
Financial Management	17.9	26.3	55.3
Financial Statement Analysis	18.4	27.0	54.6
Financial Statements	22.5	30.8	46.7
Generally Accepted Accounting Principles	20.4	36.5	42.5
Inventory Process	18.4	26.3	55.2
Management Accounting	21.7	38.8	38.9
Primary Basics of Accounting	41.5	34.6	23.5
Turkish Tax System	26.7	31.7	41.3
Uniform Chart of Accounts	27.1	31.5	41.1

The subjects that are maths-intensive according to the students respectively are: the cost calculating system (35%), cost accounting (32%), financial management (30%), financial statement analysis (29%), financial statements (28%) and budgeting (26%).

Besides these, the lack of group work and the lack of visual aids in lessons constitute important variables for the students' comprehension difficulties. Even though these variables are not among the high-rate variables, an important proportion of the students consider these as the reason for their comprehension difficulties.

In addition, unqualified instructors or inadequate sources have lower rates besides other reasons for comprehension difficulties.

4. Discussion and Conclusion

This research aimed at determining the comprehension difficulties of senior year students of accounting subjects in the faculty of economic and administrative sciences and the reasons for these. The findings of the research reveal that senior year students who are about to complete their undergraduate education have difficulties in comprehending the basic subjects of accounting or do not comprehend these subjects at all (Table 1). The research conducted by Ozpeynirci et al. [20] determined the faculty of economic and administrative sciences students' efficiency levels in accounting lessons. This research reveals similar findings to their research.

This research determined the reasons for students' comprehension difficulties. These reasons can be listed as: the teaching methods being based on memorization, the lessons not including adequate case studies, group work and visual aids and the subjects being maths-intensive. Unqualified instructors and inadequate sources have relatively lower rates.

According to Albrecht and Sack [23], the basic problem in accounting education is that accounting education is conducted using teaching methods that are not creative but based on memorization. Considering the findings of this research, that one of the reasons for students' comprehension difficulties is that the courses are based on memorization is fairly meaningful.

Table 2. The reasons for comprehension difficulties in accounting subjects (%)

Subjects	Does not include group work	The instructor is unqualified	The sources are inadequate	Based on memorization	Maths-intensive	Does not include visual aids	Does not include adequate case studies
Account Categories	18	8	9	9	11	18	**27**
Accounting Process	17	10	12	8	12	16	**25**
Accounting Records	15	8	10	10	13	12	**32**
Accounting Standards	13	9	18	**25**	8	11	16
Auditing	12	7	11	**31**	7	12	20
Auditing Process	18	7	9	**30**	6	10	20
Auditing Report	17	8	7	**29**	5	13	21
Budgeting	21	4	8	9	**26**	15	17
Computerized Accounting and Applications	19	7	3	6	12	14	**39**
Corporate Accounting and Applications	22	6	6	5	24	11	**26**
Cost Accounting	19	4	5	8	**32**	12	20
Cost Calculation Systems	21	7	4	6	**35**	9	18
Financial Management	18	8	7	18	**30**	5	14
Financial Statement Analysis	21	9	8	9	**29**	7	17
Financial Statements	19	11	9	8	**28**	8	17
Generally Accepted Accounting Principles	18	9	14	**27**	9	12	11
Inventory Process	19	7	9	9	20	9	**27**
Management Accounting	15	8	11	16	19	11	**20**
Primary Basics of Accounting	17	9	12	**27**	9	7	19
Turkish Tax System	18	8	10	**20**	18	9	17
Uniform Chart of Accounts	13	8	6	**32**	16	10	15

The research carried by Kalmis and Yilmaz [18] determined the current situation of undergraduate accounting education and what should be done to develop this situation. The findings of their research, that accounting education should contain more case studies, group work and technological aids, are also similar to the findings of this research. In this context, education should be based on case studies, oral presentations, team teaching, the inclusion of professional administrators, the use of technology, the use of accounting software packages and group work [24].

The related literature contains many pieces of research on the use of case studies in accounting education. Case studies may motivate the students and trigger their interest in the courses [25]. Stewart and Dougherty [25] conducted research that aimed at determining the advantages of using case studies besides traditional methods in education. In the research the process costing subject was taught to a group of students (experimental group) using case studies besides traditional methods, and the same subject was taught to another group of students (control group) through only traditional methods. The findings of the research reveal that the students in the experimental group have significantly higher success in the text-type questions than the control group. Moreover, the report titled *Perspectives on Education* prepared by the Accounting Education Change Commission in 1990 emphasizes the importance of case studies in accounting education [26].

Group work is defined as a method in which the content and the structure of the course is determined by the teacher; however, the interaction of the students plays an important role [27]. Group work that can be carried out in groups of 4–6 students increases the learning of the students and also develops their decision-making, team-work and team-management skills

[8]. The two most important characteristics of group work can be referred to as group members working in interaction and cooperation with each other and being responsible for their own academic success or failure [7].

In the research conducted by Ozpeynirci et al. [20], students were asked for their advice on increasing the efficiency of accounting courses. The findings show that students think that group work and technological aids would increase the efficiency of the accounting courses.

In their research, Ciccotello, Conrad, D'Amico and Robert [28] evaluated the effect of group work and cooperative learning on the in-class and exam performances of students who take an administrative accounting course and emphasized the importance of group work. Additionally, the research carried out by Lightner, Bober and Willi [29] analysed the importance of group work in accounting education.

Consequently, the fact that accounting subjects are not comprehended by students or are hard for the students to comprehend is an important problem for the efficiency of accounting education. To solve this problem, modern teaching methods should be used efficiently. In this context, the use of case studies, group work and visual aids can increase the interest of the students in the lessons and decrease the comprehension difficulties to a considerable extent.

One of the most important factors influencing learning is the current accumulation of knowledge or the conceptual structure of the student. There may be ideas that do not correspond to scientific facts within this conceptual structure. Therefore, before starting teaching, the current conceptual structures of the students should be determined, and teaching should be planned accordingly. Thus it may be possible to assist the students in making correct correlations between their old conceptions and the new conceptions provided for them, and learning may be taken to higher levels [30–59].

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