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October 01, 2016
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Editor-in-Chief

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DISCUSSION METHOD AND ITS EFFECT ON THE PERFORMANCE OF STUDENTS IN READING COMPREHENSION IN SECONDARY SCHOOLS IN PLATEAU STATE

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Abstract: The study investigated the effect of Discussion method on the performance of students in reading comprehension in secondary schools in Plateau state. The study adopted a quasi-experimental pre-test and post-test control group design. Two randomly selected Government Secondary Schools from Jos North and Jos South Local Government Areas were used for the study. One hundred (100) senior secondary class II students from two intact classes were used for the study (i.e. 50 students per class, per school). Government Secondary School, Jos, was used as the experimental group while Government Secondary School, Bukuru, was used as the control group. Students from both groups were pre-tested to establish the homogeneity of the two groups before the commencement of the treatment to the experimental group. Both groups were taught for eight weeks. Students were tested using an instrument called a cloze reading comprehension test. The hypothesis postulated for the research was tested using T-test as a statistical tool at 0.05 level of significance. The findings indicated that there was a significant difference in the pre-test and post-test mean scores of students in the experimental and control groups. The result further revealed a higher mean score of students taught reading comprehension using the discussion method as compared with those taught using the conventional method. Based on this finding, the study recommended that teachers should be encouraged to use discussion method alongside the conventional method to enrich their reading comprehension lessons. Curriculum planners and textbook writers should equally provide topical issues/discussion topics before, during and after every reading task to make reading comprehension lessons more participatory, meaningful, purposeful, exciting, enjoyable and pleasurable.
Keywords: Discussion method, effect, reading, comprehension, performance, students.

INTRODUCTION

Reading comprehension, according to Oyetunde (2009), is a construct of varying hierarchical degrees of intensity. Students are confronted with problems of understanding what they have read and this makes it necessary for teachers to be sensitive to the issue of reading comprehension. Several researchers (Gall, 1994, Kerns, 1997 , Abisamra, 2007, Uwatt, 2007) have identified eight skills of reading comprehension. These involves locating details, recognizing the main ideas, drawing conclusion, recognizing cause and effect relationship, understanding of words in context, making interpretations and making inferences. In developing reading comprehension skill, therefore, ability to read well and possess a good command of the language should be seriously encouraged.

Researches (Oyetunde, 2009, Abisamra, 2007, Yusuf, 2014, 2015) in second language (L2) reading suggest that effective reading comprehension can be taught and that students can benefit from such instruction. Research has also shown that successful reading mainly depends on appropriate method used and that learners can improve their reading comprehension by being trained to use effective strategies and techniques. Strategic reading

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develops students' knowledge about the reading process, introduces students to specific strategies, and provides them with opportunities to discuss and practice strategies while reading (Janzen 1996). Although there are many suggestion in the literature on L2 reading as to how reading instruction should take place (e.g. Janzen, 1996, Winograd and Hare, 1988), few studies have been conducted on how teachers can use the discussion method in their classrooms. This study integrated the use of discussion method in teaching reading comprehension in secondary schools incorporate strategy training in his secondary school English reading classes.
Reading, according to Gall (1994) is a highly complex activity, including various important aspects, such as recognizing symbols quickly and accurately comprehending clearly and with discrimination the meanings implied by the author. It also involves reacting to and using ideas secured through reading in harmony with the reading purposes and integrating them to definite thoughts and action patterns (Kern 2000).

Over the years in Nigeria, reading comprehension lessons have been dominated by teachers asking students to turn to an appropriate page or chapter in the reading comprehension text book, then read and answer the accompanying comprehension questions. Or after the reading, the teachers spend time asking students questions until the desired answer is got. This conventional approach to reading instruction suggests that meaning resides within the text to be "picked-up by readers (Oyetunde & Muodumogu, 1999).

Oyetunde and Muodumogu (1999) list three reasons for reading failure in schools as, ignorance of what reading entails, inadequate preparation of teachers and poor methodology. The poor performance of students in public examinations is also traced to minimal daily contact with the language (Oyetunde, 2002). These may be the reasons why majority of Nigerian secondary school students are said to be poor at reading and comprehending.

Abiodun-Ekus and Onukaogu (2007) contend that most Nigerian students are not being empowered to benefit optimally from formal education. This is because the Nigerian educational process fails to empower her students in the skills and strategies that can make them effective, efficient and strategic readers. It therefore means that basic comprehension skills necessary for effective interaction with the texts at the secondary school level is lacking in Nigerian students.

Reading comprehension is more than what is happening in Nigerian classrooms. It is an activity in which participants construct meaning by integrating their existing knowledge with the new knowledge in the text. This process can be increased when a teacher supports students' comprehension. It is this supportive ability that is lacking in Nigerian classrooms. Moore, Moore, Cunningham and Cunningham (1994) believe that the supportive role of the teacher involves activities before students read so as to help build background knowledge and set a purpose for reading. Students should be encouraged to engage in discussion and interaction, thereby encouraging them to share what they collectively know. In developed countries, students' comprehension could be significantly increased when teachers engage students in some before-and after-reading activities that elicit higher order thinking (Sternberg, 2002). Such interactive processes would help learners to comprehend better and faster (Moore, Moore, Cunningham & Cunningham, 1994).

When teachers experience the reading selection with students by probing theirs thoughts about what they are reading and questions that stimulates further thinking, it helps learners to comprehend better and faster. Reutzel and Cooter (2007) believe that the teacher can select strategies that socially involve students actively in comprehension to increase motivation. If students lack strategies, then teachers can take steps explicitly and scaffold their use to students' independence. It is against this background that this study is undertaken to investigate the effect of discussion method on students' performance in reading comprehension.

REVIEW OF RELATED LITERATURE

Seweje (2010) confirmed that the methods adopted by teachers in most cases include the talk and chalk (lecture) minimal with very concern for practical activities. Seweje (2000) explained further that a teacher is expected to be a facilitator whose main function is to help learners to become active participants in their learning and thereby making meaningful connection between prior knowledge, new knowledge and the process involved in learning. Akinleye (2010) confirmed that if the children are given opportunity to be listened to and guided in a non-threatening atmosphere, they would perform wonders in terms of problem-solving and decision making.

Discussion is a type of activity, which involves breaking the class into small groups for effective talking on a topic, a problem or issue. It is thinking together process in which pupils talk freely to the teacher it is to one another a student-centered method since students participate actively. The role of the teacher is that of a moderator. There is flow of information from teacher to student, from student to student. The teacher should not allow individuals to dominate the discussion (Yusuf, 2012).

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Discussion a method could also be defined as in which the teacher leads or guides the students in expressing their opinions and ideas with a view to identifying and solving problems collectively. Oyedeji (1996) explained that the discussion method works on the principle that the knowledge and ideas of several people are likely to find solutions or answers to specified problems or topics. Discussion method of teaching engages both the teachers and students in thinking. It also develops in students social skills of talking and listening. Of course, the method also has some demerits including the possibility that class may be diverted from the topic. Academically weak students may not actively take part in the lessons. Some brilliant ones may likely take over the discussion. Problems may occur among the participants owing to lack of respect for other peoples' opinions and the whole class may turn into a state of pandemonium. The above problems may arise as a result of poor handling of the discussion method.

In teaching reading comprehension, therefore, learners should be exposed to topical issues that will make them interact and process information, from print. Learner gain knowledge when appropriate information is given to them and they process the information constantly. Information does not become knowledge automatically until learners have been actively involved in its processing (Akinleye, 2010).

Discussion is a method of teaching that works on the principle that many people are to put heads together in terms of knowledge and ideas to find solutions to specified problems. The activities of the discussion group are to be regulated and directed by the teacher or an appointee of the class.

Group discussion may take a variety of forms such as small group, devil's advocate, round table, panel discussion, opposing panel and debate (Adewuya, 2003). Some of the advantages of the method are sharing of ideas by students, development of social skills of talking and listening, clarification of ideas and promotion of team work. Despite all the above mentioned advantages, the demerits are numerous. Discussion can get out of hand if not properly controlled, the class may turn to a market place and confusion may arise as a result of poor management and informal nature of the organization.

According to Stephen and Stephen (2005), discussion as a process of giving and talking, speaking and listening, describing and witnessing which helps expand horizons and foster mutual understanding. They explained further that it is only through discussion that one can be exposed to new points of view and exposure increases understanding and renews motivation to continue learning. Bridges (1988) noted that discussion is concerned with the development of knowledge, understanding or judgment among those people taking part in it. He believes that discussion is more serious than conversation because it requires students to be "mutually responsive" to the different views expressed. Dillion (1994) emphasized that discussion is highly "disciplined and concerned" forum in which people come together to resolve some issues or problem that is important to them. Dillion (1994) saw discussion as an important way for people to affiliate with one another to develop the sympathies and skills that make participatory lessons possible.

In view of the foregoing, the present research sought to investigate the effect of discussion method on the performance of students in reading comprehension in secondary schools in Plateau state.

OBJECTIVE OF THE STUDY

The objective of the study was to determine the effectiveness of discussion method on the performance of students in reading comprehension in secondary schools in Plateau state.

RESEARCH QUESTION

What is the effect of discussion method on the performance of students in reading comprehension in secondary schools in Plateau state.

HYPOTHESIS

Discussion method has no significant effect on students' performance in reading comprehension in secondary schools in Plateau state.

METHODOLOGY

The study adopted a quasi-experimental pre-test and post-test control group design. Two randomly selected Government Secondary Schools from Jos North and Jos South Local Government Areas were used for the study. One hundred (100) senior secondary class II students from two intact classes were used for the study (i.e. 50 students per class, per school). Government Secondary School, Jos, was used as the experimental group while Government Secondary School, Bukuru, was used as the control group. Students from both groups were pre-

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tested to establish the homogeneity of the two groups before the commencement of the treatment to the experimental group. Both groups were taught for eight weeks. Students were tested using an instrument called a cloze reading comprehension test. The hypothesis postulated for the research was tested using T-test as a statistical tool at 0.05 level of significance.

The reliability of the instrument was determined through test-re-test and estimation of internal consistency. The instrument was first administered on 20 students from two schools that were not used for the study. After two weeks, the instrument was administered again on the same sets of students. The scores of the two sets of students were correlated using Pearson Product Moment Correlation Co efficient analysis. A correlation co efficient of 0.77 was obtained.

Treatment (Discussion method)

Step 1: Teacher introduces the lesson by asking students some thought provoking questions related to the reading comprehension passage to be discussed.

Step 2: Teacher encourages students to participate actively in class by making each student to make contributions to the questions asked.

Step 3: Teacher sets a purpose for reading by asking topical questions or raising topical issues pertaining to each paragraph of the reading task.

Step 4: Teacher encourages students to relate what is being read to their background knowledge by asking students questions such as "Have you ever had a similar experience like the one expressed by the author"? Such a question will stimulate students to express themselves in the process of narrating their individual experiences.

Step 5: Teacher relates students' individual experiences to those of the author of the reading text.

Step 6: Teacher pairs up students so they can share their experiences as they relate to the reading text. Teacher goes round to ensure that students are actively involved in the conversation.

Step 7: Teacher further groups the students in small groups of five students to discuss and share their experiences. Teacher goes round to ensure that all students in each group are actively involved in the discussion.

Step 8: Teacher guides students as they return to their seats. Teacher encourages students to share all that they have discussed in their various groups by asking them thought provoking questions that will make them think about what they have discussed in their various groups.

Step 9: Teacher guides students as they read through the reading text, paragraph by paragraph.

Step 10: Teacher asks students questions before, during and after the reading exercise to ensure that students are actively interacting with the reading task.

Step 11: Teacher concludes the lesson with the a summary of the major issues discussed as they related to the reading task.

DATA PRESENTATION AND ANALYSIS

The research question earlier stated for the research which says "what is the difference in the performance of students taught reading comprehension using discussion method and those taught using the conventional method" was answered using table 1&2.

Table 1: Mean and standard deviation of students' scores in the experimental and control groups.

Group	Test	N	X	SD
Experimental	Pre – test	50	3.0	1.10
Control	Pre – test	50	2.48	1.12

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Table 2: Mean and standard deviation of students post-test scores in the experimental and control groups.

Group	Test	N	X	SD
Experimental	Post-test	50	3.34	1.18
Control	Post-test	50	2.92	1.42

Table 1 and 2 have revealed the students' mean scores and standard deviation in the pre-test and post-test. In table 1 the mean and standard deviation of students in the pre-test of the experimental group is 3.0 and 1.10 respectively while that of the control group is 2.48 and 1.12 respectively.

In table 2 the mean and standard deviation of students in the post-test of the experimental group is 3.34 and 1.18 respectively while that of the control group is 2.92 and 1.42 respectively. There is a slightly higher mean scores of the experimental group (3.34) as compared with the control group (2.92) in the post-test result. This means that the effect of the treatment on the experimental group was positive.

The hypothesis postulated for the research which says "Discussion method has no significant effect on the performance of students taught reading comprehension in secondary schools in Plateau state" was tested using T-test as shown on table 3.

Table 3: Mean, SD and t-test of students taught reading comprehension using discussion method (experimental group) and those taught using the conventional method (control group).

Group	N	X	SD	DF	Tcal	t-crit
Experimental	50	3.34	1.18	98	1.60	0.60
Control	50	2.92	1.42			

Significant at 0.05 level of probability P> 0.05

Table 3 shows that the mean score of students taught reading comprehension using the discussion method (that is experimental group) was 3.34 while the mean scores of students taught using the conventional method was 2.92. In order words the mean score of the experimental group was higher than that of the control group, signifying that the experimental group performed better than the control group.

The statistics from table 3 indicated that the calculated t-value was 1.60 while the t-tabulated value was 0.06. In accordance with the decision rule which states that the null hypothesis should be rejected if the t-calculated is less than the t-critical or t-tabulated. Therefore, the null hypothesis is rejected. This means there is a statistically significant difference in the mean score of students taught using the discussion method and those taught using the conventional method. The statistically significant difference is in favour of the experimental group.

FINDINGS

This study focused on the facilitative effect of discussion method and conventional reading instructional method on students' performance in reading comprehension. The finding revealed that students who were taught using discussion method achieved better in reading comprehension than those who were not.

This finding supported Stahl's (2008) finding that students' comprehension of texts were greatest with the use of discussion method than other control conditions.

Discussion method espouses the teacher guidance using purposeful questions aimed at directing learners' attention to important ideas and assisting them with hard-to-grasp concepts in a manner in which other methods do not offer. The finding is also in agreement with those of Beck and Mckeown (2001) who found that using discussions as part of a read-aloud may increase vocabulary acquisition and comprehension. This is because discussion creates opportunities for students to reflect on the storyline or the text language and this promotes comprehension. Gall (1994) also reported that for classroom questions to exert positive impact on students' learning and achievement, classroom instruction should include posing questions during lessons.

The finding also confirmed the finding of Isiugo-Abanihe (2002) that reading was handled poorly in most school. the authors found that teachers' strategies and pupils activities were inadequate for any meaningful reading instruction to take place. Oyetunde (2002) also found that poor instructional practice in schools lead to poor performance of the students in reading. These findings resonate with those of the current study where the performance of the students exposed to conventional reading instructional method was significantly lower than that of those exposed to discussion methods.

The statistically significant mean performance gain under discussion method compared to conventional reading instructional method showed that it is no longer tenable for the reading teacher to wait for students to complete

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the reading exercise before questions are asked. The questioning and prediction activities of discussion method help to arouse and maintain students' attention and curiosity and to follow the storyline. It, therefore, means that inattentive or daydreaming students could gain from such reading lessons.

CONCLUSION

Based on the empirical data obtained from this research, the researcher concluded that discussion method has the potency to improve students' performance in reading comprehension. Therefore, discussion method should be used alongside the conventional method in order to facilitate and enhance students understanding of reading comprehension passages in secondary schools.

The study further, established that the use of discussion method leads to improved performance in reading comprehension. Discussion method captured students' attention and increased their involvement in the class. The discussions that ensured before, during and after the reading exercise made students retain and recall more information from the texts. The finding also imply that the teacher is responsible for helping students get a better understanding of texts by the type of reading activities they encourage before, during and after the reading exercise. The teacher needs to be educated on how to effectively and efficiently teach reading to make the lesson participatory, meaningful, functional and pleasurable. The researchers are of the opinion that the reading problems of secondary school students cannot be solved unless teachers and curriculum planners adjust to the needs of the students by using appropriate and effective teaching methods in reading comprehension lessons.

RECOMMENDATIONS

The following recommendations were made on the basis of the findings of this research:

- Teachers should be encouraged to use discussion alongside the conventional method in order to enrich their reading comprehension lessons.
- Curriculum planners and textbook writers should provide topical issues/discussion topics before, during and after every reading task to make reading comprehension lessons more participatory, meaningful, purposeful, exciting, enjoyable and pleasurable.
- Teachers should be encouraged in every reading comprehension lesson to engage their students in discussion through series of thought provoking questions that will stimulate meaningful and purposeful discussion based on the reading task.
- Teachers should be encouraged to attend seminars, workshops and conferences in reading methodology to update their skills in reading instruction.
- Federal, state and Local Governments and Ministries of Education should initiate processes whereby teachers can be trained specially in reading instruction to enhance their pedagogical skills.
- Universities, Colleges of Education and other institutions should offer courses in reading methodology in order for teachers to update their skills in reading.
- More effective training through workshops, seminars, conferences, in-service courses on how to implement discussion method may help to give teachers more support in trying to implement the discussion method in their reading comprehension lessons.

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IMPLEMENTATION OF SIX SIGMA METHODOLOGY (DMAIC) FOR THE ENHANCEMENT OF LEARNING & MOTIVATION LEVELS OF STUDENTS

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Abstract: Our aim of this study is to evaluate the relationships of dependant variables i.e. learning levels (based upon Bloom's taxonomy), motivation & results of students against the factors of Batch #, Semester #, time for study at home, program, subjects, topics, age, gender, graduation background, selection of topic for research from this course, application of this course in job and relevance of topic to career in general. Learning levels include Knowledge, Comprehension, Application, Analysis and Synthesis. The marking to these levels signify 1,2,3,4 & 5 respectively. The motivation, learning and result levels were measured through Likert scale of 1 – 5 (1 being the least and 5 the highest). The result levels were also converted to a scale of 1 – 5 (by dividing the marks obtained in a subject by total marks and then multiplying by 5).The process included obtaining feedback from the students of relevant programs on prescribed formats.
Abbreviations used: Motivation (M), Result (R) & Learning (L).
Six Sigma methodology (DMAIC) was utilized, in order to define and measure the existing sigma level and the steps which should be taken in order to enhance learning and motivation level of students which in turn will enhance Sigma level as well. This study embeds the concept of Bloom's taxonomy with Six Sigma methodology which was applied to the M.Sc & M.S programs of Quality and Human Resource Management.
After implementation of the proposed solutions, it is anticipated that the sigma level will be improved from 3.45 to 3.85 approx, the defect rate would be reduced from 13.36 % to 4.39 %. After implementation of the proposed solutions, in the next academic session 9.0 % enhancement in the present revenue (in the form of fees) is expected because of the increased number of intakes (students) due to enhanced level of learning and motivation levels of students.

INTRODUCTION

Emergence of interdependent global economy is creating new challenges. Several management tools and techniques are developed to help maintain or achieve a higher excellence level. Six Sigma methodology is one of the most famous problem solving tool.

Six Sigma is a business management approach, formerly established by Motorola, USA in 1986. Six Sigma became well known after Jack Welch made it a dominant emphasis of his business approach at GE in 1995, and today it is widely being utilized in many processes / sectors of organizations.
Six Sigma pursues to progress the quality of practice outputs by categorizing and eliminating the reasons of deficiencies (errors) and minimizing variability in business processes.
This research project is about the enhancement of learning and motivation levels of students of M.S. & M.Sc (Quality Management & Human Resource Management).

Bloom's Taxonomy is a grouping of learning goals within education proposed in 1956 by a team of educationalists chaired by Benjamin Bloom. Although named for Bloom, the publication followed a series of conferences from 1949 to 1953, which were planned to progress communication between educators on the design of curricula and examinations.
Bloom's Taxonomy distributes educational objectives into three "domains": Cognitive, Affective, and Psychomotor. Within the domains, learning at the higher levels is dependent on having attained prerequisite knowledge and skills at lower levels. In this research, we will be using the Cognitive domain. Bloom's Taxonomy is well-thought-out to be a introductory and indispensable component within the educational

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community as evidenced in the 1981 survey *significant writings that have influenced the curriculum: 1906-1981*, by H.G. Shane and the 1994 yearbook of the National Society for the Study of Education.
Learning & Motivation level are directly proportional to the success of any professional institute and these directly concerns with the business growth of the institute.
Well learned & motivated students of our programs when pass out from this institution to serve in a different organization, their learning capabilities and motivation speak about the success of our programs and the organizations will get the benefit of their strengths.
Students can apply knowledge to solve related problems, analyze the data to see co-relations among factors involved in the topics, as well as understanding of problems faced by organizations and they will be able to design/develop appropriate systems related to the topic within the context of different organizations. So our success means nothing but inculcating in the students the required perception levels, which will further attract more students based on a competitive edge of learning. And we will also be able to have a leading role in the market competing with other national and international level institutes offering the same programs. And ultimately the business will increase.
As per Cognitive model of taxonomy, subsequent is the description of levels which includes:
Level 1: **Knowledge Level** (Remembering data or information)
Level 2: **Comprehension Level** (Understanding the sense, paraphrase, utterance, and explanation of directions and complications.
Level 3: **Application Level** (Using a perception in a new state of affairs or impulsive use of an concept. Relates what was learned in the classroom into different circumstances in the work place.
Level 4: **Analysis Level** (Divorces ideas into component parts so that its organizational structure may be implicit.
Level 5: **Synthesis Level** (Shapes a construction or design from various elements. Put parts together to form a whole, with prominence on producing a new sense or structure.
Level 6: **Evaluation Level** (Present and protect thoughts by making decisions about evidence, rationality of concepts or quality of work based on a set of principles). The researchers believes that the Evaluation level belongs to the Expert level. So we did not include it in our study which relates to the enhancement in the learning and motivation level of students and this study relates up to the Level 5.
The structure of the Paper: The report is structured into the following phases of (DMAIC) methodology:
Define phase
Measure phase
Analyze phase
Improve phase
Control phase

Theoretical framework of the study
In this theoretical framework, Learning levels, Motivation levels and result levels in each and every individual subject of the previous semester are dependant variables and will be measured against the following independent variables Program, Subject, Gender, Age, Study Hours at home, Graduation Background, Semester, Batch and application of course in job.

DATA & METHODOLOGY:
Learning levels include Knowledge, Comprehension, Application, Analysis and Synthesis. The marking to these levels signify 1,2,3,4 & 5 respectively. The motivation, learning and result levels were measured through Likert scale of 1 – 5 (1 being the least and 5 the highest). The result levels were also converted to a scale of 1 – 5 (by dividing the marks obtained in a subject by total marks and then multiplying by 5)
The process included obtaining feedback from the students of relevant programs on prescribed formats. The data collected through this feedback was measured in application of MS. Excel, Pivot Chart.
Define Phase:

Table 1: AVERAGE MOTIVATION AND LEARNING LEVELS OF STUDENTS

Program	M	L
M.Sc-HRM	3.90	2.84
M.Sc-QM	2.89	2.10
MS-HRM	3.80	3.18
MS-QM	3.91	2.17

Measure Phase:
In this phase we will measure the (Y's), Learning levels, Motivation levels and result levels in each and every individual subject of the previous semester against the following factors (X's) including Program,

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Subject, Gender, Age, Study Hours at home, Graduation Background, and application of course in job. In order to collect the data, a format for each individual subject of each program was designed (specimen attached in the annexures). All of the students were explained about learning levels (based upon Bloom's taxonomy) so that they can easily understand the relevant terminology because they have to fill out the forms accordingly. Motivation levels against each topic were to be determined on the likert scale of 1 – 5 (1 being the least and 5 being the highest).

After that all of the students were circulated the specific formats of their relevant subjects which they have studied in their previous semester and of which the results were also available.

Descriptive Statistics of Learning, Motivation and Result Level of Students

Variable	N	Mean	St. Dev	Median
L	1115	2.9839	1.3879	3.0000
M	1115	3.7892	1.2094	4.0000
R	1115	3.8145	0.7767	4.0000

Measuring and displaying the current Baseline

We are considering the value 2 and below as the defect in case of learning as well as motivation level. So on the basis of the data available, following is the calculation for sigma level.

Base Line

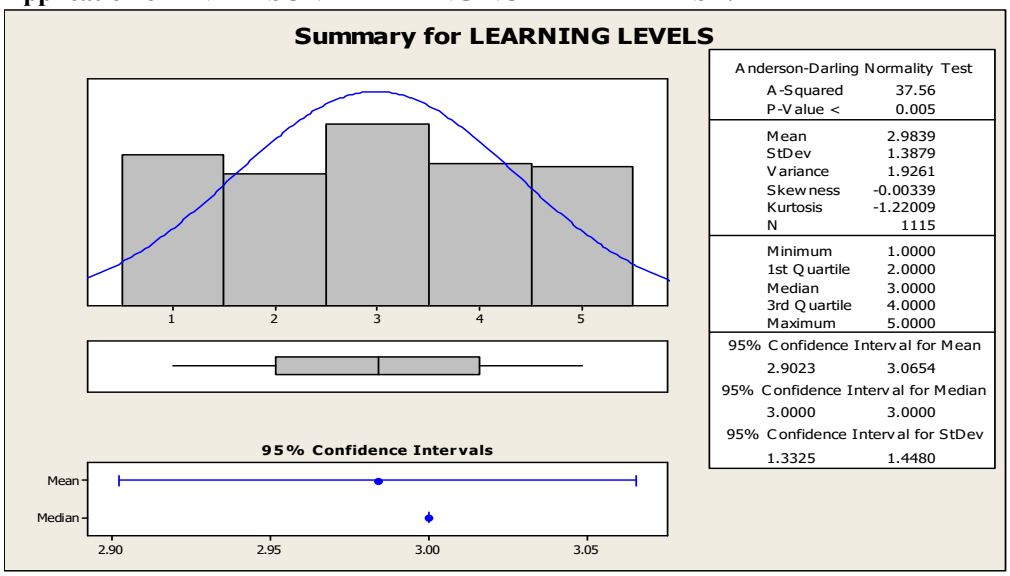
DPU: 149 / 1115 = 0.1336

DPO= 149/(1115X5) = 0.02672

DPMO= $0.06892X10^6$ = 26720

Sigma Level = 3.45 approx.

Application of ANDERSON – DARLING NORMALITY TEST:



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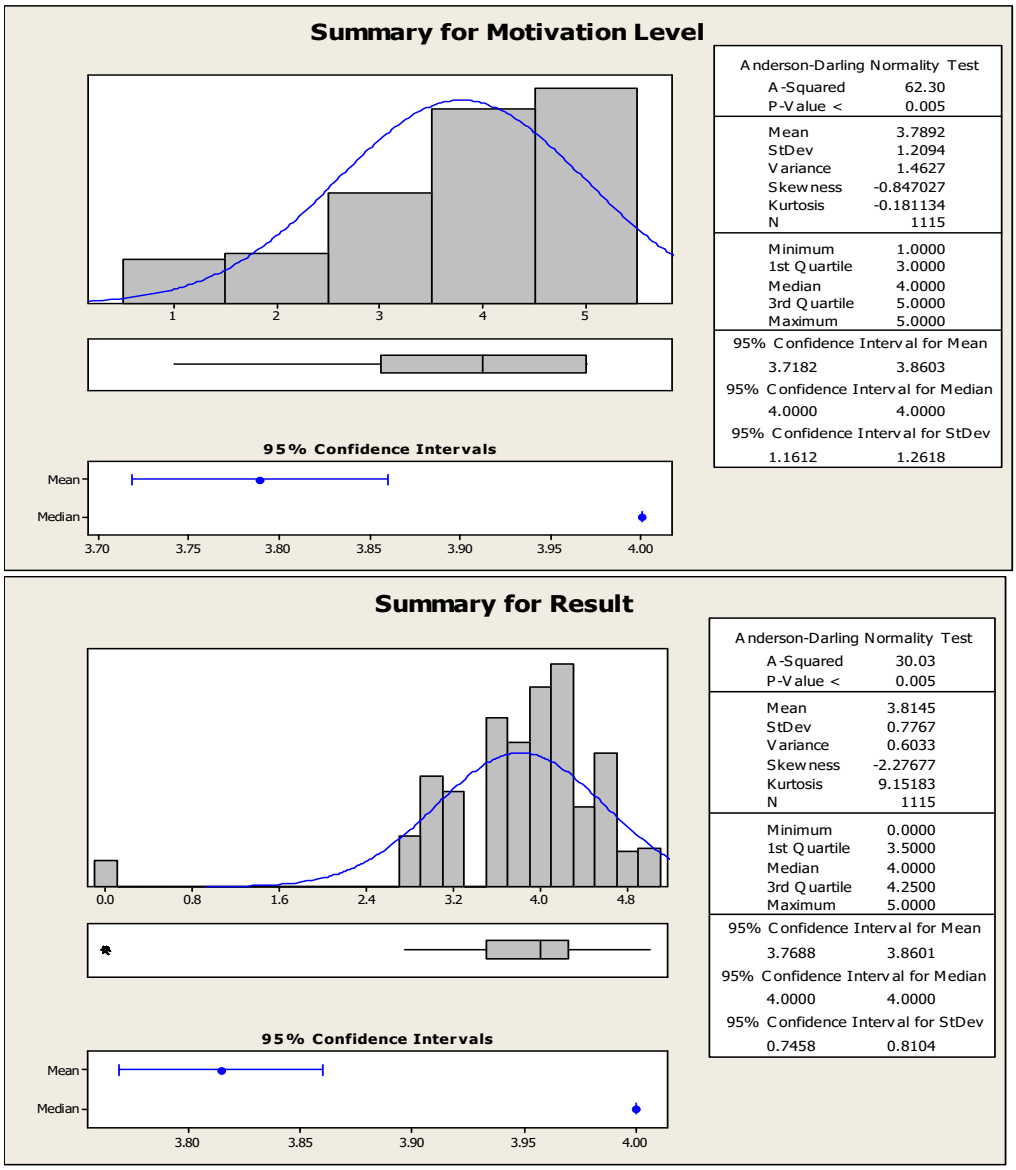

Analysis Phase:

After the measurement stage and establishing the baseline and target levels, we analyzed the causal relationships in detail by using the following techniques:

1. While analyzing the data the significant difference of 0.5 is considered.
2. Mood median test for Learning as well as Motivation level.

This phase involve identifying and validating possible X's. Analysis through the use of Pivot Chart

Table 3: Overall Learning, Motivation & Result Level of Students

M	R	L
3.76	3.81	2.94

Table 4: Programwise Learning, Motivation and Result Level

Program	M	R	L
M.Sc-HRM	3.90	3.90	2.84
M.Sc-QM	2.89	3.57	2.10
MS-HRM	3.80	3.83	3.18
MS-QM	3.91	3.75	2.17
Grand Total	**3.76**	**3.81**	**2.94**

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Table 5: Subjectwise Learning, Motivation and Result level

Subject	M	R	L
Compensation & Performance Management	3.57	3.87	2.87
Learning & Organizational Behavior	4.15	4.14	3.27
Metrology	3.12	4.32	2.08
QMS	3.98	3.82	2.29
Recruitment & Selection	3.75	3.50	3.27
SPC	3.31	3.07	2.05
Grand Total	3.76	3.81	2.94

Table 6: Genderwise Learning, Motivation and Result level

Gender	**M**	**R**	**L**
Female	4.40	3.96	3.50
Male	3.68	3.79	2.86
Grand Total	**3.76**	**3.81**	**2.94**

Table 8: Learning, Motivation & Result level vs. Time for Study at home per week

Time for study	**M**	**R**	**L**
10-15 hrs	3.36	3.5	1.45
3-6 hrs	4.12	3.72	3.02
6-10 hrs	3.04	4.06	2.61
Less than 3 hrs	3.48	3.88	3
More than 15 hrs	3.54	3	3.54
Grand Total	**3.76**	**3.81**	**2.94**

Table 9: Learning, Motivation & Result level vs.Graduation Background

Graduation Background	**M**	**R**	**L**
B.Com (Hons.)	3.09	3.74	2.93
B.Sc	3.13	3.78	2.18
BA	4.14	3.69	3.12
BBA (Hons.)	3.99	3.19	2.96
M.Com	3.72	3.93	3.71
MA	4.5	4.19	3.5
MBA	3.76	3.98	2.94
Others	3.92	3.86	2.90
Grand Total	**3.76**	**3.81**	**2.94**

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Table 13: Learning, Motivation & Result level vs. Application of Course in Job

Application of course in job	M	R	L
May Be	3.17	3.89	2.21
No	3.60	4.00	2.59
Yes	4.03	3.77	3.29
Grand Total	**3.76**	**3.81**	**2.94**

Conclusions of Analysis Phase:

- Average learning level of the students is lower as compared to their results and motivation.
- The learning and motivation level of students of M.Sc (QM) program is lowest as compared to students of other programs whereas motivation level of students of M.Sc (HRM) is highest. The learning level of students of MS – HRM is higher as compared to students of other programs.
- The motivation and learning level of students of Leadership & Organizational Behavior is higher as compared to other subjects. Learning level of students in case of SPC is lower as compared to other subjects. The result level of students of SPC is lesser as compared to students of other courses.
- Motivation, learning and the result level of Female students are higher as compared to the male students.
- Motivation level & results achieved in case of 41 – 50 years age group are best amongst all. There is no significant difference between the learning levels of different age groups
- The motivation and result level of students with graduation background (M.A.) is highest whereas the learning level of graduates with M.Com background is highest. The learning level of students with B.Sc background is lowest in both of the programs.
- With regards to application of course in job the motivation level, of students who opted for YES, is highest.

After application of Mood Median Test, following Key Process Input variables have been identified

Table 14: PROGRAM WISE KEY PROCESS INPUT VARIABLES OF LEARNING AND MOTIVATION

Sr. No.	Program	KPIVs in case of Learning	KPIVs in case of Motivation
1.	M.Sc – HRM	• Graduation Background • Time for Study at home	• Gender • Graduation Background • Time for Study at home
2.	M.S. (HRM)	• Gender • Age Group • Graduation Background • Subject	• Gender • Graduation Background • Time for Study
3.	M.Sc. (QM)	• Age • Time for Study • Subject	• Graduation Background
4.	M.S. (QM)	• Graduation Background • Subject	• Age • Subject

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Improve Phase:

Following key process input variables which have been derived from Analysis phase:

- Graduation Background
- Time for Study at home
- Age
- Gender
- Subject

If we look at the present data of learning & motivation level vs. Gender, data is not sufficient to study this factor and there is no practical significance in relation to this factor. Practical significance of Age group is also impractical as far as learning and motivation level in various subjects of different programs. If we also look at the data of graduation background, the organization we can not fix specific graduation backgrounds because of the very fact that the intake (number) of students will be affected.

So Time for study at home and subject are the Key Process Input variables which have been shortlisted.

In order to improve upon the learning and motivation levels of students, following are the proposed solutions in order to enhance these levels:

- Peer review of the Subject Course
- Case studies along with practical examples in order to enhance study time at home and to create motivation
- Professional Resource Persons / Instructors from Educational Institute or Private sector having practical exposure of the subject.

Design of Experiments

3 Factors were taken and a base design of 2^3 with 16 runs and two replicates was created and full factorial design was applied using Minitab software

Factors: 3 Base Design: 3, 8

Runs: 16 Replicates: 2

Blocks: 1 Center pts (total): 0

All terms are free from aliasing.

Factorial Fit: Marks % versus Course Reviewed, Case Study, Teacher

Estimated Effects and Coefficients for Marks % (coded units)

Term	Effect	Coef	SE Coef	T	P
Constant		76.6250	0.4239	180.76	0.000
Course Reviewed	8.7500	4.3750	0.4239	10.32	0.000
Case Study	17.0000	8.5000	0.4239	20.05	0.000
Teacher	0.5000	0.2500	0.4239	0.59	0.572
Course Reviewed*Case Study	1.0000	0.5000	0.4239	1.18	0.272
Course Reviewed*Teacher	0.5000	0.2500	0.4239	0.59	0.572
Case Study*Teacher	-0.7500	-0.3750	0.4239	-0.88	0.402
Course Reviewed*Case Study*Teacher	-0.2500	-0.1250	0.4239	-0.29	0.776

S = 1.69558 R-Sq = 98.46% R-Sq(adj) = 97.11%

Peer review of the course and induction of case studies are the significant factors whereas the teacher either from Educational Institute or having practical experience of industry is insignificant. All other combinations are insignificant.

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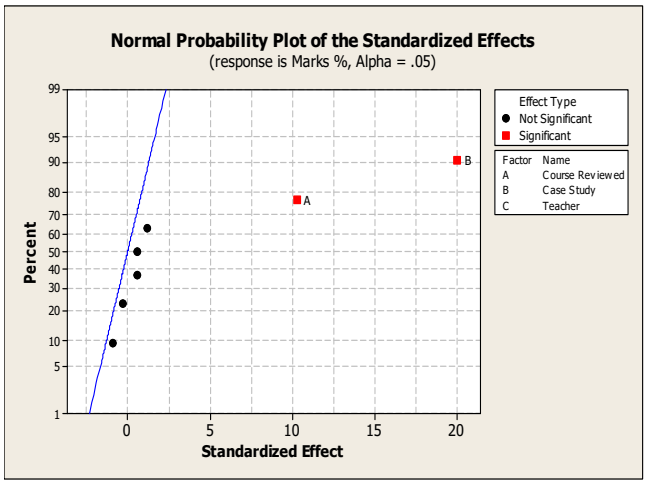


Normal Probability plot of the standardized effects shows that at 95 % confidence interval, Peer review of course and Induction of case studies are again the significant factors whereas the Resource Person either from Educational Institute or having practical experience of industry is insignificant.

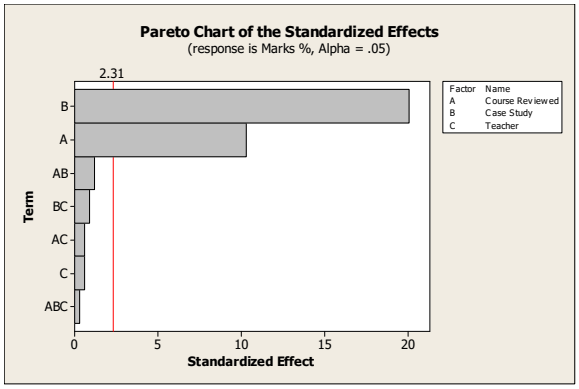
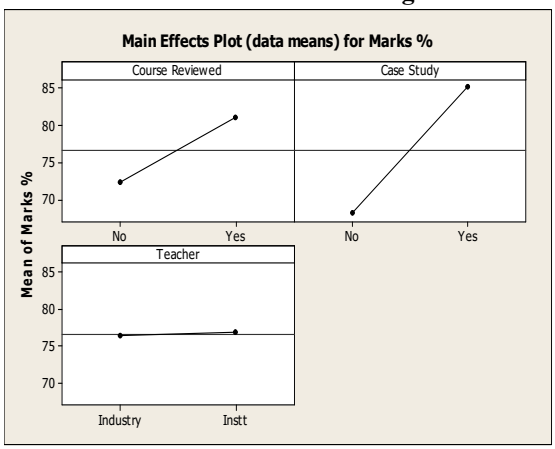


Fig. 16: Pareto Chart of the Standardized Effects:

Fig. 23: Main Effects Plot for Marks %:



Paretochart of the standardized effects at 95 % Confidence interval & main effects plot shows that induction of case studies is highly significant, then is the Peer review of the course and factor of Teacher (either from industry or some educational institute) is least significant.

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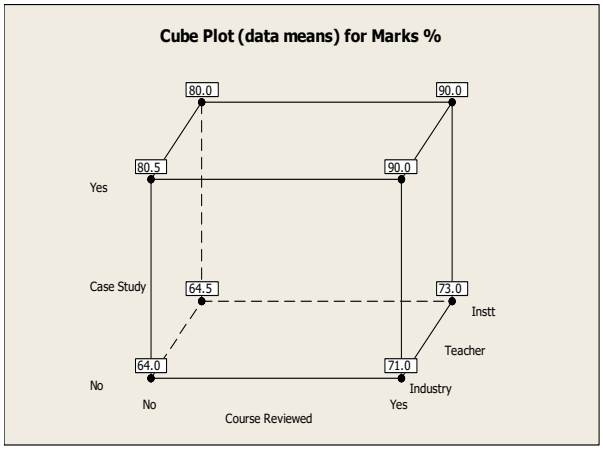
Proposed Solution:

Fig. 24: Proposed Solution Cube Plot



Combination of Peer review of course and induction of case studies in to each subject of the program and teacher either from the institutes or industry is showing the best result.

Fig. 25: Pareto Chart of the Standardized Effects after Implementation

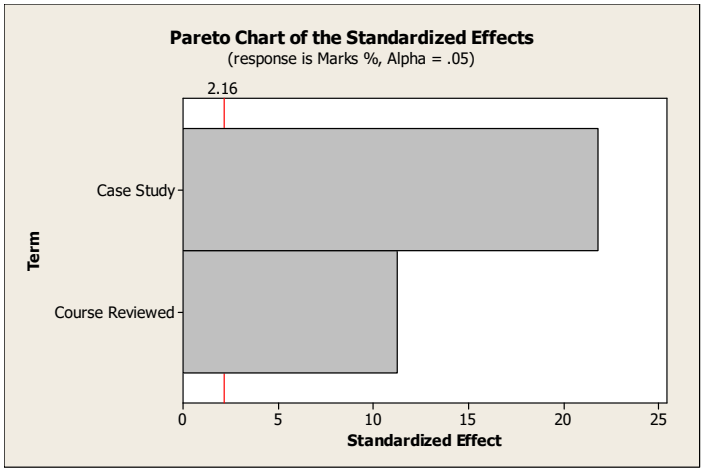
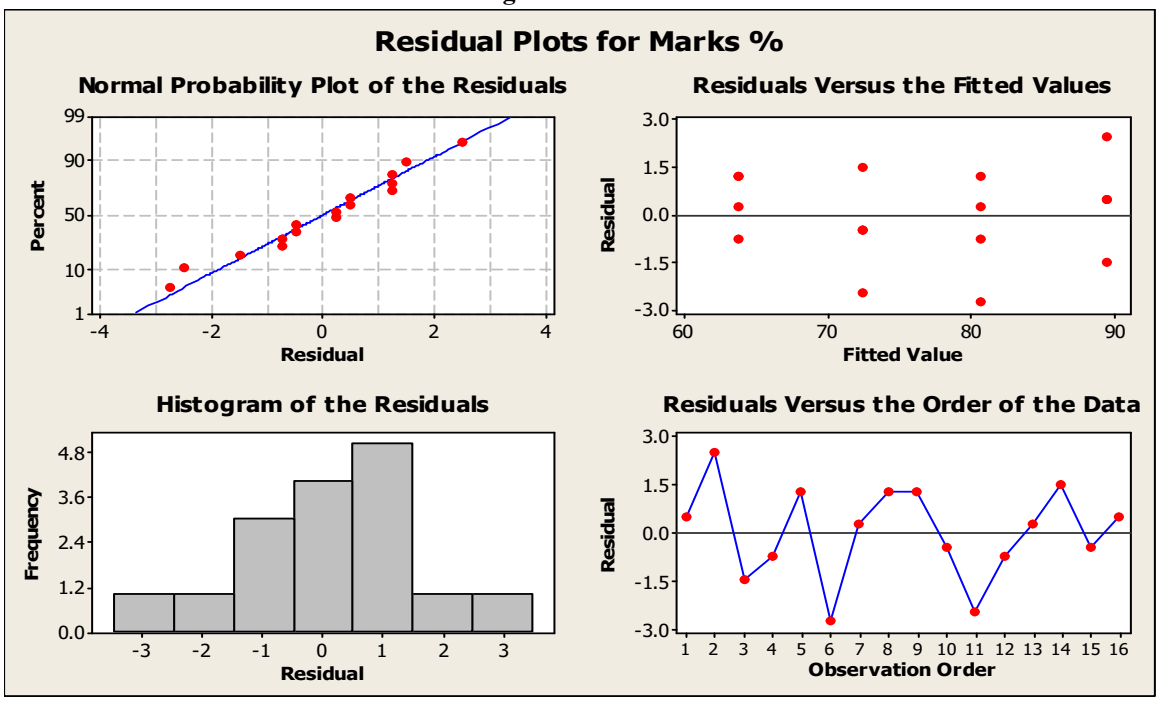


Fig. 26: Residual Plots



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As is evident from model diagnostics, the distribution of marks % is normally distributed.

CONCLUSION OF IMPROVE PHASE:

Peer review of the course and induction of case studies along with practical examples in to each subject of the programs are the best possible choices to address critical X's. Course objectives should be embedded with Bloom's taxonomy

Control Phase / Discussions & Recommendations

In the Control Phase, the emphasis is on successful implementation of and maintaining the goals / targets achieved:

- Peer review of the course. Course objectives should be embedded with Bloom's taxonomy
- Induction of case studies

The improvement can only be guaranteed if we consider the contents of course reviewed prior to its commencement and the teaching methodology has been changed from imparting knowledge through slides to case studies discussion and problem solving keeping in view the practical scenario in relation to Pakistan or Asian culture. Peer review of the course contents is being conducted in order to create its competitiveness with other well reputed public institutes. Both of the steps would be helpful in enhancing the learning and motivation level of students. Ultimately when the learning outcomes and motivation level of students will be enhanced, same will be the voice of our students and their parents in the market.

Data bases (Annexure 3 & 4) for Case Studies / Research Articles have been created for the facilitation of instructors and students as well. Incharge Academics will be responsible to ensure the proper delivery of case studies / research articles in each subject of the programs. Now the course outlines of all of the courses of all the programs have been revised (specimen attached as Annexure 5) and embedded with components of Bloom's taxonomy. Previous outlines have also been attached herewith (as Annexure 6) for comparison

Self Assessment sheet (Annexure 7) has been designed for students who will fill the same and submit to the course instructor after studying the case studies.

EXPECTED GAINS BY APPLYING SIMULATION:

After a year progress sigma level will be shifted as follows:

Expected Sigma Level

DPU: 49 / 1115 = 0.0439

DPO= 49/(1115X5) = 0.008789

DPMO= $0.008789X10^6$ = 8789

Sigma Level = 3.85 approx.

Previous defect rate:

149/1115 = 13.36 %

Expected Defect rate:

49/1115 = 4.39 %

Difference:

13.36 – 4.39 = 9.0 %

- After implementation of the solutions, it is expected that the sigma level will be improved from 3.45 to 3.85 approx.
- After implementation of the solutions, the defect rate would be reduced from 13.36 % (previous based upon the data available) to 4.39 %. Defect rate would be reduced by approx.9.0 %. If the defect rate would be reduced by 9.0 %, same will be shown as improvement percentage.
- After implementation of the above mentioned solutions, in the next academic session 9.0 % enhancement in the present revenue (in the form of fees) is expected because of the increased number of intakes (students) due to enhanced level of learning and motivation levels of students.

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Learning Domains or Bloom's Taxonomy - Donald R. Clark

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INFLUENCE OF STUDENTS' SATISFACTION WITH STUDENT LIFE QUALITY ON THEIR PERFORMANCE: THE CASE OF HIGHER EDUCATION INSTITUTIONS IN PORTUGAL

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Abstract: This paper discusses the student satisfaction, student's life quality and their performance. The main goal of this paper is to further elaborate which factor influences the overall student life satisfaction to the greatest extent. Furthermore, the aim of this paper is to establish if there is a direct link between student life satisfaction and life in general and the link between student life satisfaction and students' performance. The verification of research goals is based on the review of literature. On the basis of previous research, a valid research instrument was created. The verification of research goals are empirically analysed among the students of the University ofAveiro, Portugal.It is believed that research results can assist managers of educational institutions in creating a strategy, leading to the better students satisfaction with student life quality and there performances.
Keywords: Students Satisfaction, Student life quality, Performance, Higher Education, Portugal

INTRODUCTION

A number of research projects have been conducted on the subject of students' satisfaction and the effect thereof on achieved results and overall life satisfaction of student population. Many authors have elaborated this subject in order to determine if there was a connection between the students' personal satisfaction and the achieved success during studying and to establish what causes student satisfaction. Numerous variables were analysed, in particular Thien and Razak (2012) examined the quality of the environment where the classes were conducted, Simomu and Dahl (2012) the quality of teachers' performance, workload, social life, religious life, sports activities, family influence, employment opportunities, future expectations, difference between part-time and full-time students; Mark (2013) analysed the *student-customer* model. Data obtained from this research can be utilised by higher education institutions in their attempt to provide a better quality service than their competition and thus attract new generations of students.

Precisely the aforementioned variables encouraged Thien, Razak (2012) to closely examine in their paper the non-cognitive studying outcomes which they refer to as *"Student Quality of School Life (SQSL)"*, i.e. Student Life Quality. The effect of *Academic Coping (ACOP)*, *Friendship Quality (FQUA)* and *Student Engagement (SENG)* on student life qualitywas examined. On the other hand, Gibson (2010) examined students' satisfaction and included some non-academic aspects therein, e.g. university reputation, contact personnel quality in administrative departments, acknowledgements and services, quality of teaching and IT facilities and student body diversity. Simomu and Dahl (2012) are based more on teaching quality analysis and the effect of that variable on students' satisfaction. However, not all authors observe students' satisfaction through the classical prism of academic and non-academic variables and their effect on satisfaction. Hence Mark, E. (2013) in his paper deals with the achievement of students' satisfaction through the controversial student-customer model.

The scientists in Portugal have also dealt with the subject of students' satisfaction in order to meet the students' needs to the greatest extent possible, improve the studying process and remove any potential problems. According to Alves and Raposo (2007), in the past two decades the higher education sector in Portugal underwent some sweeping changes, as well as in the USA and in the rest of the European countries. It is primarily caused by the considerably reduced number of candidates enrolled as government measures to increase the quality level and introduce the minimum level of points that need to be registered, and secondly by the

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decreased birth rate. Furthermore, the decrease in public financing and the increase in the perspective of "money value" have been confirmed, which requires greater responsibility from the institutions in this sector in terms of quality and efficiency, Aleves, Raposo, (2007). On the other hand, the higher education institutions are facing different types of students (young students at the beginning of the study, graduates and post-graduates, experts with continuous personal improvement and adults seeking knowledge update or professional evaluation) with different needs and studying goals, and satisfaction perspective. This competitive scenario became even more intense due to the agreement on the Bologna Declaration harmonising academic degrees in the European Union. The main goal of this paper is to further elaborate which factor influences the overall student life satisfaction to the greatest extent. Furthermore, the aim of this paper is to establish if there is a direct link between student life satisfaction and life in general and the link between student life satisfaction and students' performance.

THEORETICAL ASPECTS OF STUDENTS' SATISFACTION

According to OzretićDošen (2002) service quality and users' satisfaction are undoubtedly closely connected, mutually intertwined values. The most commonly cited and applied definition in marketing compares expectations and perceptions of users each time they are faced with the service. According to OzretićDošen (2002), the company should strive towards maximising the users' satisfaction. Furthermore, Vranešević (2000) states that the concept of clients' satisfaction is based on the concept of value and we have previously mentioned that the value aspect (i.e., the aspect of expected benefit) is mostly influenced by quality. In their paper, Young, Ennew (2001) explain the connectedness of consumers' satisfaction with their loyalty to a certain product/ service and the effect of loyalty on the realisation on the company's profit goals. The powerful connection between employees' satisfaction and consumers' satisfaction is examined in the paper of Gelade, Young (2005), where they explain that the practice has shown significant, positive correlation between the employees' work experience and the financial results of company's business operations.

Budić, Andrilić (2011) define users' satisfaction as the consequence of value of the received product or service with respect to the expected value, which could cause positive or negative feelings evoked in the client by using a certain product or service. In order to achieve optimum users' satisfaction, the companies should create products and services which would ensure a complete product or service, i.e. contain the product/service and support thereof. Furthermore, Badri et al. (2010) in their paper deal with measuring the modified users' satisfaction index model in Abu Dhabi assumed from the original *American Customer Satisfaction Index (ACSI)* model. The particularity of Badri et al. (2010) research is the measurement of parents' satisfaction at measuring satisfaction in schools/faculties, because they enable schooling to their children. In fact, parents' satisfaction is considered similar to users' satisfaction and their satisfaction influences the parents' loyalty to the school their child is attending (Bhote, 1996; Salisbury et al, 1997; Scheuing, 1995, cited from: Badri et al. 2010). Research conducted by Badri et al. (2010) is based in two factors: perceived quality and users' expectations and quality level expected by the users before using the service. Research was conducted on 4774 persons (parents and students). Research findings show that on the scale from 1 to 100, the parents' satisfaction with public schools/faculties their child is attending has a high-ranking grade of 69.52, whereas in the USA it received a low-ranking grade of 6.9. It is similar with the private universities; ADEC received the grade of 75.48, whereas in the USA the importance of parents' satisfaction was graded as low as 7.1, which is extremely low with respect to ADEC. Consequently, there is no point in implementing the same reforms in the educational system of the USA and the UAE, because they would not be enacted. Therefore, each country should determine its current position and the prospective direction, and on that basis determine the strategy of achieving the desired goals, taking into account the social norms.

Furthermore, numerous authors have examined the effect of each individual item constituting the overall studying impression (library, student registration office, canteen, personnel, technical support etc.), and consequently their effect on students' satisfaction. Jayasundara et al. (2010) have analysed the significance of library service satisfaction in the overall students' satisfaction, i.e. studying experience since the library is an intrinsic element of the study process. Model on which the research was conducted is based on the modification of the SERVQUAL (*Service Quality*) model developed in 1988 by Parasuraman, A., Berry, L.L., Zeithaml, V.A. (1988, 1990, 1991). Examinees confirmed the hypothesis that their overall satisfaction is proportional to the improvement of the library service quality. Also, the research has shown that there is room for improvement, but it depends on different work practices, methods, community and library resources. It was proven that culture can have a significant influence on service quality and customers' satisfaction. Moreover, numerous research projects have demonstrated that students' satisfaction with their faculties positively influences their motivation, regular attendance of classes, possible recommendations of the faculty to future students, which increses the faculty's reputation and budget (Alves and Raposo, 2013).

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In their research, Simomu and Dahl (2012) are based more on teaching quality analysis and the influence of that variable on students' satisfaction. Evaluation methods are based on student's success rate based on different measures determined by the teacher or the educational system. However, not all authors observe students' satisfaction through the classical prism of academic and non-academic variables and their effect on satisfaction. Hence Mark, E. (2013) in his paper deals with the achievement of students' satisfaction through the controversial *student-customer model* and explains positive and negative sides of that model. According to Marku, E. (2013), many scientists refute the idea that the quality management principles (*Total Quality Management – TQM*), whose significant component is the focus on customers, can be transferred onto education. One of the most crucial reasons thereof is the fact that the focus on customers can be potentially harmful in the learning process (Albanese, 1999; Bay & Daniel, 2001; Buck, 2002; Cloutier& Richards, 1994; Franz, 1998, cited from Mark, E. 2013), because in order to ensure students' satisfaction, their demands should occasionally be met, although it is not currently the best idea since it might encourage the students to blame the institution for their personal failures. One of the arguments is that the students simply do not have enough knowledge of what they need in order to achieve successful learning (Albanese, 1999; Wambsganss& Kennett, 1995, cited from Mark, E. (2013). Besides, there is no significant incongruity between what the students want and what they actually need (Rinehart, 1993; Schwartzman, 1995, cited from Mark, E. (2013).

THEORETICAL ASPECTS OF MEASURING PERFORMANCES

Educational sector is a part of the public sector whose basic purpose is to satisfy the public needs. With the aim of monitoring the extent to which those needs have been met, many countries use different success indicators. Rowe (2004) describes them as indices by which data on functionality and quality of service providers and public sector are measured and assessed. According to Vašiček, Budimir, Letinić (2007), one of the most significant issues occurring in the higher education institutions is quality guarantee. Higher education quality represents the core of establishing the European Higher Education Area. In that respect, it is extremely important to develop the common criteria and methodology of quality assurance. Furthermore, Vašiček, Budimir, Letinić (2007) compare in their paper the types of measurements of success indicators between Australia, Great Britain and Canada. Authors state that, for instance, in Australia, success rate is measured through four groups of indicators (Department of Education, Science and Training, 2005; cited from: Vašiček, Budimir, Letinić, 2007): *student indicators*; *staff indicators*; *finance indicators*; *research indicators*. In Great Britain, the *Higher Education Statistics Agency - HESA* each year publishes a series of higher education success rate indicators. The following success rate indicators are calculated: enrolment indicators; completion indicators (yes/no); efficiency; employment indicator; research activity. In terms of Canada, the educational system has considerably improved, which they achieved by introducing the total quality management. However, it is interesting to emphasise that this manner of management defines the students and the public as clients. This type of understanding perceives the higher education institutions as based on entrepreneurial principles. In the Canadian higher education system, the state prescribed several groups of indicators, namely: (Beaton, 1999b, cited from: Vašiček, Budimir, Letinić, 2007): indicators based on programme results (student indicators); indicators measuring financial efficiency; indicators based on research activity.

In their paper Schochet and Chiang (2010) schematically divided performance measurement into two parts. In the first part the authors deal with the internal school issue: "Which teacher performs their job in a certain educational institution exceptionally well or exceptionally poorly with respect to all other teachers in that institution?", while in the second part they examine the inter-school issue: "Which teachers perform their job exceptionally well or exceptionally poorly with respect to all other teachers in the entire school district?".Furthermore, Rittschof and Chambers (2011), with the help of modern information graphs, tend to better understand the differences in the students' performances. Also, E. Umbleand M. Umble (2012) conducted the performance measurements in a very interesting way. In fact, they illustrated the effect of the performance measurement system on the organisational performances among the students through the game *"The Blue-Green Game"'*. This game illustrated the significance of performance measurement, student encouragement system and their strength to reconsider their decisions on such an important subject. Hanushek (1996) studied in his paper the difference between performances of seventeen-year old students based on race and ethnical affiliation. Rode et al. (2005) researched not only the effect of satisfaction with the faculty on students' performances, but the influence of the overall life satisfaction on them. Research has shown that the students who are more satisfied with their overall life have better results and cope more easily with studying challenges and vice versa. In both cases, the research has demonstrated that life satisfaction is important, not only from the aspect of influencing the social environment or keeping students, but academic performance as well. Numerous studies have shown that the satisfaction with particular life areas is in strong correlation with the overall life satisfaction (e.g., Andrews &Withey, 1976; Campbell, Converse, & Rodgers, 1976; Near, Smith, Rice, & Hunt, 1983; Near, Smith, Rice, & Hunt, 1984; Rice, Near, & Hunt, 1979, cited from Rode et al., 2005). From all of the

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aforementioned, we can deduce that there are numerous possibilities for conducting performance measurements. Sergy et al. (2010) also examined the issue of students' satisfaction and its influences. In their paper, these authors have based their research on the examination of satisfaction with the academic aspects of student life, e.g.: satisfaction with the faculty, satisfaction with the teaching methods, satisfaction with the class environment, satisfaction with the workload, satisfaction with the academic reputation and academic differences. Furthermore, the research included the social aspects of student life, such as: satisfaction with campus accommodation, satisfaction with international programmes and services, satisfaction with spiritual programmes and services, satisfaction with clubs and student social organisations and satisfaction with recreational activities.

EDUCATION AND HIGHER EDUCATION IN PORTUGAL

One of the most commonly implemented definitions of education was provided by Haralambos and Holborn (2002), which states that "education is simply the aspect of socialisation which includes acquisition of knowledge and learning of skills". Different educational sectors, from pre-school education to research, personal improvement of teachers and long-distance learning, have developed in parallel (Grosjean, 1994). When we discuss the present-day higher education system within the European Union, we must mention the Bologna Process which is a constituent part of the unified educational system of Europe. The Bologna Declaration was signed on 19th June 1999 by twenty nine European countries (Polšek, 2004). According to Vassiliou (2012), the Bologna Process has entirely changed theretofore higher education scene in Europe. However, this kind of educational organisation set new challenges before the social community. Therefore the ministers who gathered in Leuven/Louvain-la-Neuve in 2009 agreed that the newly occurred issues should be modified in the changing environment and set the following four goals for the new decade (Vassiliou, 2012): finalisation of the structural reform and deepening of its implementation through consistent understanding and implementation of developed tools; enforcement of higher education quality connected with research, lifelong learning and promotion of employment; ensuring the realisation of the social dimension by enabling the students to enrol in and complete the higher education and that the diversity of student population in Europe is reflected; ensuring that at least 20% of graduates in the European Higher Education Area underwent professional training abroad.

Before elaborating the situation of higher education in Portugal, we need to lay out the amount the Portuguese government invests in the educational sector in general. According to the 2011 Worldbank indicator, the Portuguese government awards 5.1% of the total GDP funds to the educational system. This indicator includes the expenditures financed by the transfers from international to governmental resources. Government refers to local, regional and central government.

For instance, Figure 1 shows how much money the governments of Portugal, Republic of Croatian and Norway provided for the educational system from the overall GDP. This indicator indicates that the developing countries should continue to increase their expenditures in the educational sector because it is the key to better and better quality society as a whole, which is best attested by the highly developed countries investing on average 6-8% of the overall GDP in the educational system. However, Portugal is slowly approaching that limit

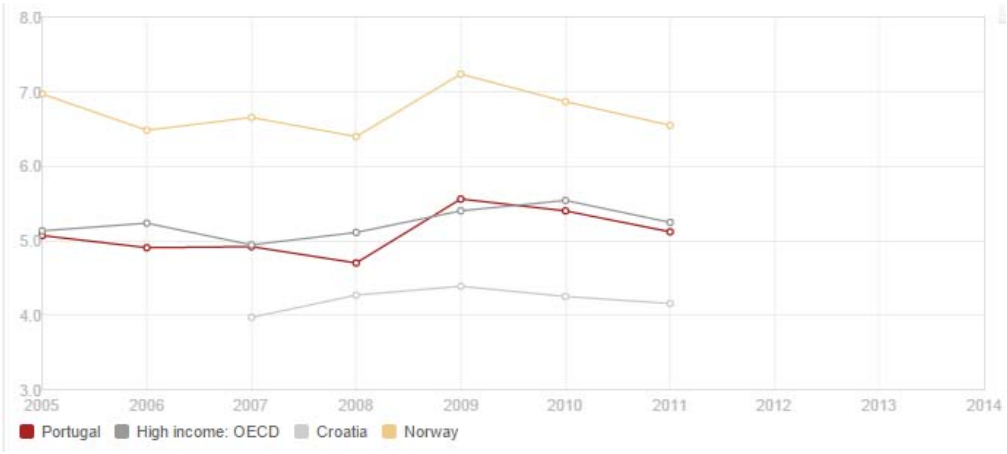

Figure 1: Governmental education expenditure, total (% of GDP)

Source: The World Bank, http://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS/countries/PT--XS-HR-NO?display=graph

In Portugal in 1996/1997 there were 82.140 officially registered students, and until 2008/2009 that number substantially increased to 115.372 students. The number of graduated students has also increased from 68.511 in 2002/2003 to 84.009 in 2007/2008 (GPEARI, 2009a, cited from: Bisinoto et al, 2014). According to File (2008),

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the most significant changes in the Portuguese educational system occurred after the parliamentary election at the end of 2005. Educational reform was the key item in the pre-election campaign, hence it became the important part of the new government programme. The government accepted the provisions of the Bologna Process with regard to the three-part education – bachelor's, master's and doctoral degree. In June 2005, Portugal approached the implementation of OECD *(The Organisation for Economic Cooperation and Development- OECD)* review of the Portuguese higher education system within the education programme of the OECD Board for Public Survey. In May 2006, the Portuguese technological plan was issued. The key goals of this plan which should be realised by 2010 include the duplication of the number of PhD holders and the increase in the number of science and technology graduates by 50% (File, 2008). Furthermore, in the sense of systematic diversity, the Portuguese higher education is rather diversified in terms of institutions which constitute the system. There are three principal lines of institutional differentiation: binary difference between the university and college institutions, difference between specialised schools with usually one focus and larger integrated multi-oriented institutions and finally the co-existence of public and private sector of higher education (OECD, 2007, cited from: File, 2008). According to the OECD data from 2012, Portugal is among the countries which show the best progress in terms of improving the qualification bases, but it still lags far behind with respect to secondary and higher level of education. Nonetheless, Portugal has one of the lowest rates of secondary education attendance among the 25-34 age population (52% with respect to the OECD average of 82%, Portugal is at the 34th place out of 36 countries). However, the situation is considerably different for graduate studies. The rate of completed graduate studies in 2010 surpassed 100% (with respect to the average OECD grade of 84%), and more than 40% of students were over 25 years of age.In terms of student financing, higher education in Portugal rests on the assumption that the parents/families are responsible for the students' living expenses, and not the state. Slightly over half of Portuguese students come from families with a better financial status. Around 70% of students receive funds from their families in order to support themselves, whereas around 50% live at home. Only around 20% of students pays for their own education.

EMPIRICAL RESEARCH

Research model

The research model occurred as a combination of two models from different authors and, based on them, it was adjusted to the needs of the Portugal research. Authors of the original models are Rode et al. (2005) and Sirgy et al. (2010). Both models deal with students' satisfaction and affecting elements. The model in Figure 2 illustrates how satisfaction with the faculty, faculty facilities and accommodation influences the overall students' satisfaction with the student life and to what extent the overall satisfaction with the student life influences student performances.

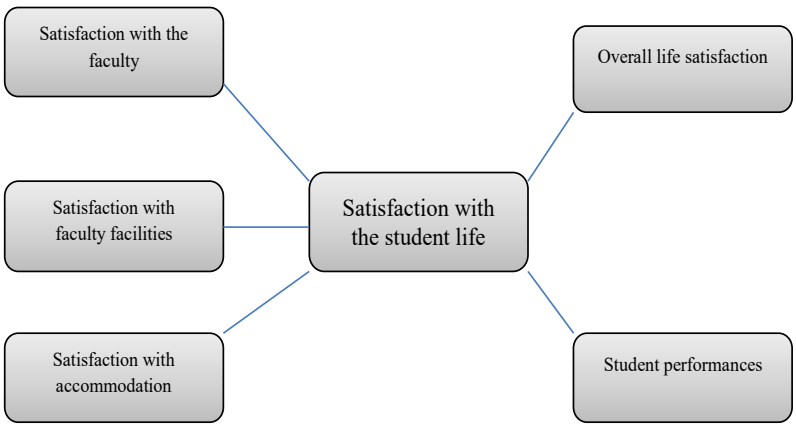

Figure 2: Research model

Satisfaction with the student life encompasses the following aspects:

- satisfaction with the faculty (teachers, teaching methods, academic reputation) - cited from Rode et al. (2005), in the original model, the influence of this item on the overall life satisfaction and performances was analysed.
- faculty facilities, bodies and services (student registration office, library, infolab, parking) – cited from Sergy et al. (2010), in the original model, the influence of this variable on the satisfaction with academic and social aspects was analysed.

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- accommodation (whether the students live in dorms, private accommodation or with parents) – cited from Rode et al. (2005), the influence of this factor on the overall life satisfaction and students' performances was analysed.

Research was conducted among the students of the Faculty of Economics in Aveiro, Portugal. Here, we should emphasise one of the specificities of higher education in Portugal. The students of, for instance, primarily mathematical faculty can sign up for economics courses they deem interesting or useful. Furthermore, there is a certain number of economics courses (related to management and company management), which are mandatory for all students regardless of the faculty they are attending, because the Portuguese government believes that every person with higher education, who will one day work in the factories (e.g. engineers) or similar companies, should know the economic, i.e. managerial part of their domain. At the Faculty of Economics in Aveiro, there are 2000 students from the 1st to the 5th year. Survey questionnaire was conducted on the random sample of 150 examinees. For the specificity of the environment where the research was conducted, the survey questionnaire was personally given to each individual examinee. In fact, in Portugal there is a poor students' response to online surveys. The analysis of the collected data was performed at the Statistical Package for Social Sciences - SPSS.

Results

The study included 60.7% women and 39.3% men. The largest number of respondents (46%) had between 21 and 23 years, and the smallest number of respondents (3.4%) is 27 years old and more. From 18 to 20 years of age have 37.3% of respondents, while 24 to 26 year is 13.3% of respondents. The largest number of respondents (45.3%) is the third year of undergraduate study. The minimum number of respondents did not answer this question, 1.3% of them. On the second year of undergraduate study, 26% of respondents, the first year of graduate studies is 14.7% of the respondents, the second year of graduate studies is 10% of the respondents, while 2.7% of respondents in the first year of undergraduate study. Most of the respondents were full-time students, some 94%, part-time students is 4.7%, while 1.3% of respondents did not answer this question. As in Portugal, the University of Aveiro, it is possible to enrol on subjectsfrom different study programsat the same time, some respondents noted multiple choice answers. The survey showed that most respondents listens Management study program (45.3%) and the lowest number of respondents are from Psychology study program (1.3%). Subjects from Languages programs listens 27.3% of respondents, from Industrial engineering program 16% of respondents, from Economy Program 8% of respondents, from other branches of engineering, 4.7% of respondents, and the exact sciences, 2% of respondents.

H_1: The greater the satisfaction with the teachers' teaching methods and knowledge, the greater the satisfaction with the overall student life

For the purpose of determining the connectedness of the observed variables, we will use the Pearson's linear correlation coefficient, which is also the most well-known measure of linear correlation.

Table 1: Impact of the quality of teaching on Satisfaction with the student life

		The quality of teaching	Satisfaction with the student life
The quality of teaching	Pearson Correlation	1	**0,359**
	Sig. (2-tailed)		0,000
	N	150	150
Satisfaction with the student life	Pearson Correlation	**0,359**	1
	Sig. (2-tailed)	0,000	
	N	150	150

Table 1 illustrates that Pearson's correlation coefficient amounts to r = 0.359, which means that there is a weak positive correlation between the teaching quality and the overall satisfaction with the student life. Analogously to the aforementioned, two other variables were analysed, Table 2.

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Table 2: Value, the direction and intensity of Pearson linear correlation coefficient

VARIABLES	VAULE OF THE COEFFICIENT	DIRECTION AND THE INTENSITY OF THE COEFFICIENT
The quality of teaching	0,359	weak positive correlation
Knowledge of the professors of subjects they teach	0,090	weak positive correlation
Regularity of classes	0,209	weak positive correlation

The influence of the faculty on students' satisfaction with the student life has a positive impact in all three observed variables, i.e. in all three cases there is weak positive correlation. Based on the performed analysis, the decision was made to *accept Hypothesis* H_1*: The greater the satisfaction with the teachers' teaching methods and knowledge, the greater the satisfaction with the overall student life.*

H_2: The greater the satisfaction with the faculty facilities, the greater the overall satisfaction with the student life

The effect of the faculty facilities was observed through three categories, each consisting of certain claims. The total of 10 claims were observed, and pursuant to that 10 tests were conducted in order to reach the final decision on accepting or refuting the hypothesis. Table 3 shows that Pearson's correlation coefficient amounts to r = 0.267, which means that there is weak positive correlation between the satisfaction with the library staff and the overall satisfaction with the student life.

Table 3: The impact of the library staff to the total satisfaction of student life

		Library staff	Satisfaction with the student life
Satisfaction with the student life	Pearson Correlation	1	**0,267**
	Sig. (2-tailed)		0,001
	N	150	150
Satisfaction with the student life	Pearson Correlation	**0,267**	1
	Sig. (2-tailed)	0,001	
	N	150	150

Analogously to the previous research, other tests were conducted and all tests for all 10 claims are presented in Table 4.

Table 4: Value, the direction and intensity of Pearson linear correlation coefficient

VARIABLES	VAULE OF THE COEFFICIENT	DIRECTION AND THE INTENSITY
Library staff	0,267	weak positive correlation
Organization of library materials	0,216	weak positive correlation
Availability of materials	0,195	weak positive correlation
Availability of computers	0,317	weak positive correlation
Speed of Internet connection	0,304	weak positive correlation
Equipment quality	0,325	weak positive correlation
Age of computers	0,269	weak positive correlation
Availability of parking	0,196	weak positive correlation
Sports and recreational facilities	0,169	weak positive correlation
Purchase of books and other material	0,234	weak positive correlation

The influence of the faculty facilities on students' satisfaction with the student life, Table 4, in all ten observed variables has a positive impact, i.e. in all ten cases there is weak positive correlation. Based on the performed analysis, the decision was made to *accept Hypothesis* H_2*: The greater the satisfaction with the faculty facilities, the greater the overall satisfaction with the student life.*

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H_3: The greater the satisfaction with accommodation, the greater the overall satisfaction with the student life

Prior to the testing, the structure of examinees was presented regarding the type of accommodation with respect to satisfaction, Table 5.

Table 5: Students' satisfaction with regard to the type of accommodation

		Type of accommodation				
		Dormitory	Private accommodation	With parents/family	Other	Total
Satisfaction	sufficient	1	4	0	0	5
	good	7	15	13	1	36
	verygood	9	52	33	1	95
	excellent	1	10	3	0	14
Total		18	81	49	2	150

Table 5 shows that the majority of examinees reside in private accommodations and the least number of examinees reside in other forms of accommodation. The majority of examinees, regardless of the type of accommodation, marked their accommodation arrangements as very good, whereas the least number of examinees marked them as sufficient. Not even a single examinee marked their accommodation arrangements as insufficient.

Table 6.The impact of satisfaction with accommodation on the overall satisfaction with the student life

		Satisfaction with accommodation	Satisfaction with the student life
Satisfaction with accommodation	Pearson Correlation	1	**0,211**
	Sig. (2-tailed)		0,009
	N	150	150
Satisfaction with the student life	Pearson Correlation	**0,211**	1
	Sig. (2-tailed)	0,009	
	N	150	150

Table 6 illustrates that Pearson's correlation coefficient amounts to r = 0.211, which means that there is weak positive correlation between the students' satisfaction with accommodation and the overall students' satisfaction with the student life quality.
Based on the performed analysis, the decision was made to *accept HypothesisH_3: The greater the satisfaction with accommodation, the greater the overall satisfaction with the student life.*

H_4: The greater the overall satisfaction with the student life, the greater the overall life satisfaction

Table 7: The impact of student life satisfaction to overall life satisfaction

		Satisfaction with the student life	The overall life satisfaction
Satisfaction with the student life	Pearson Correlation	1	**0,225**
	Sig. (2-tailed)		0,006
	N	150	150
The overall life satisfaction	Pearson Correlation	**0,225**	1
	Sig. (2-tailed)	0,006	
	N	150	150

Table 7 shows that Pearson's correlation coefficient amounts to r = 0.225, which means that there is weak positive correlation between the overall students' satisfaction with the student life and the overall life satisfaction.
Based on the performed analysis, the decision was made to *accept HypothesisH_4: The greater the overall satisfaction with the student life, the greater the overall life satisfaction.*

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H_5: The greater the overall satisfaction with the student life, the greater the student performances

Student performances were observed through 3 variables. At the beginning, one variable (studying regularity) will be demonstrated with respect to the overall satisfaction with the student life. Then, for the purpose of establishing the connectedness of other observed variables, Pearson's linear correlation coefficient will be applied.

Table 8: The respondents' satisfaction and regularity of studying

		Regularity of studying				
		BO	Repeat few years of studying	Repeat one year of studying	Regularly passed	Totalo
Satisfaction with the student life	sufficient	0	1	1	3	5
	good	0	7	8	21	36
	verygood	2	7	18	68	95
	excellent	0	0	4	9	13
Total		2	15	31	101	149

Table 8 shows that the majority of examinees regularly enrolled at the subsequent years of study, and the least number of examinees repeated several years. It is discernible from Table 8 that the majority of examinees marked the overall satisfaction with the student life as very good, and the least number of examinees marked it as sufficient, regardless of the studying regularity. Not a single examinee marked the overall satisfaction with the student life as insufficient. Analogous to the aforementioned, two more variables were analysed. Table 9 shows that Pearson's correlation coefficient amounts to r = 0.351, which means that there is weak positive correlation between the overall satisfaction with the student life and the learnt material quality, and that Pearson's correlation coefficient amounts to r = 0.157, which means that there is weak positive correlation between the overall satisfaction with the student life and the faculty success rate.

Table 9: Value, the direction and intensity of Pearson linear correlation coefficient

VARIABLES	VAULE OF THE COEFFICIENT	DIRECTION AND THE INTENSITY
Learnt material quality	0,351	weak positive correlation
Faculty success rate	0,157	weak positive correlation

Based on the performed analysis, the decision was made to *accept HypothesisH_5: The greater the overall satisfaction with the student life, the greater the student performances.*

H_6: The greater the satisfaction with multiculturalism, the greater the satisfaction with the faculty

This hypothesis will aim to determine the effect of the satisfaction with multiculturalism on the satisfaction with the faculty, i.e. the influence on 3 variables observed through the category of the faculty. Table 10 illustrates that Pearson's correlation coefficient amounts to r = 0.152, which means that there is weak positive correlation between the satisfaction with multiculturalism and the teaching quality; Pearson's correlation coefficient amounts to r = -0.090, which means that there is weak negative correlation between the satisfaction with multiculturalism and the teachers' knowledge and Pearson's correlation coefficient amounts to r = 0.054, which means that there is weak positive correlation between the satisfaction with multiculturalism and the teachers' knowledge.

Tablica 10: Value, the direction and intensity of Pearson linear correlation coefficient

VARIABLES	VAULE OF THE COEFFICIENT	DIRECTION AND THE INTENSITY
Thequalityofteaching	0,152	weakpositivecorrelation
Knowledgeoftheprofessorsofsubjectstheyteach	-0,090	weakpositivecorrelation
Regularityofclasses	0,054	weakpositivecorrelation

The effect of the satisfaction with multiculturalism on the satisfaction with the faculty has different impact on the observed variables. The conclusion of the performed analysis is that the greater satisfaction with multiculturalism influences the greater satisfaction with the teaching quality and the teaching performance

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satisfaction, whereas the greater satisfaction with multiculturalism leads to the reduced satisfaction with the teachers' knowledge of their respective courses. Based on the performed analysis, the decision was made to *partially accept Hypothesis* H_6*: The greater the satisfaction with multiculturalism, the greater the satisfaction with the faculty.*

CONCLUSION

After analysing the results, we can say that the students at the department of the Faculty of Economics in Aveiro, Portugal, are satisfied with the faculty, student life and life in general. Also, the research has shown that their satisfaction with these items positively affects their performances. When we conducted the research of satisfaction with the student life with respect to gender, not a single examinee, regardless of the gender, marked this variable as insufficient. Among the male examinees, the majority (61.02%) marked the satisfaction with the student life as very good, and not a single examinee marked it as sufficient or insufficient. Among the female examinees, the majority (64.84%) marked the satisfaction with the student life as very good, while the least number of female examinees (5.49%) marked it as sufficient. The research has also determined that the total amount of average monthly income does not affect a better score during studying. The conducted research has revealed the extent to which certain variables, such as faculty bodies, teaching quality, library, accommodation etc. affect the achievement of students' satisfaction and performances and eventually the extent to which they influence the overall life satisfaction. This research can be useful not only for the institution where it was conducted, but also for other educational institutions as guidelines for service provision. The said examination determined the current status, students' opinions and future expectations. These data can be useful for the educational institutions to better understand the students' needs, desires and expectations. Also, the fact that the students' expectations tend to change does not mean that the educational institutions are not up-to-date with that trend which largely influences students' satisfaction. This paper can also be used as a contribution to the subject of whether the universities have to follow the trends and expectations among the students or they should uphold their own standards and "conservative" principles. Labour market is increasingly demanding, competition is fierce and it is expected that the students' expectations with respect to the institutions they are attending will change accordingly. Our recommendation is to conduct the research at the level of the entire university, and eventually in the entire educational sector in Portugal in order to gain information regarding the direction in which education as a whole should evolve and to rectify the hitherto errors and avoid any potential future errors.

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REFLECTIONS ON READINESS OF FRESHMAN STUDENTS IN UNDERGRADUATE MATHEMATICS

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Abstract: In this study , we attempted to understand the problems associated with learning processes of function concept within freshman mathematics classroom. Before starting to teach Function Concept to the General Mathematics class of freshman students , we applied a diagnostic test with a single question.“Define the Function Concept and decide which of the following relations can be a function?”
Then we delivered the Function Concept to the class in a lecture mode of teaching and give various counter examples of relations which are a function or not a function. Then as a post -test we asked the same question to the same class to measure any gain of the function concept. Unfortunately, we did not get any satisfactory improvement in the formation of the Function Concept.The results are given in the paper.
Key words : General mathematics, Function, Concept teaching, Concept learning

INTRODUCTION

The aim of this study is to investigate the learning processes of the function concept in General Mathematics course at the University level. To identify student’s misconceptions and to find out the readiness of students in that course is very crucial. The General Mathematics course is the one of the most widely common subject of freshman students where misconceptions and errors occur.(Aydin,ICQH 2014) General Mathematics is a compulsory course at the freshman level in most of the Faculties such as Engineering, Commerce,Economics and Life Sciences. This course is not a core course for those Faculties.It is realized as a service course by them. The students of these Faculties are not willing to learn it rigorously and thoroughly in a meaningful way as a science subject. The high school graduates in that course are not homogeneous from the point of view of readiness level at mathematics knowledge to take this course. All the freshman students in that course entered to the University Entrance Examination which has Mathematics Test in it. Their success grades in Mathematics Test varies from very low to the very high point . The instructor of the course has to prepare and present his/her lecture for that heterogeneous class accordingly to the present students in the class who ranges from the bottom mathematics level to the high mathematics level.

Students who have conceptual misunderstanding of fundamental definitions of high school mathematics should be identified earlier to correct those misconceptions. Otherwise, they will give up to learn any mathematics any further. This will restrict their choice of future planning of prospective career.

The function concept takes place in the first year of secondary school curriculum. In General Mathematics of the first year of university , we start with preliminaries such as sets, plane, line equations, etc.. The first main topic of General Mathematics is the Function. The concept of the Function is a essential notion to learn the more advanced mathematics topics . If a high school graduate do not know the meaning of the Function concept , and no visual image of it, he/she can not learn General Mathematics at all in a meaningful sense.

METHOD:

The readiness of students in the mathematics knowledge before starting General Mathematics course at the freshman level is diagnoised . The first main subject of the General Mathematics course was the Function Unit . Before we started to teach the Function Concept Topic , as a short quiz question, we asked the following diagnostic question to the freshman class.
What is a function? Define it. Are the followings each statement a function ?

a) $y=5$ b) $x=2$ c) $y^2=x$ d) $x^2 + y^2 = 9$ e) $4y - 3x = 8$
f) To each student , there corresponds a school number
g) To each parent, there corresponds an annual income

We graded the answers and found out that none of the students give the right answer to any of the above questions in the quiz.

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The research design of this study can be named " exploratory study " where we tried to find out the readiness level and misconceptions of students during the realistic classroom setting. This research can be named a case study since we investigated a contemporary phenomenon in its real life context.

Then the Function Unit lectured to the class in a classical way of teaching in a conference mode by the instructor. Our definition of the Function Concept given in the class was as follows:

"A function f on a set D into a set S is a rule that assigns a unique element f(x) in S to each element x in D. "

In this definition , D is the domain of the function f . The range R of f is the subset of S consisting of all values f(x) of the function. There are several ways to represent a function symbolically. Venn Diagrams is one of them . By a formula, such as $f(x) = x^3$ which defines a function symbol f to name the function. By a mapping rule such as $x\text{-----}x^3$ (read as x goes to x^3) . Also , think of a function f as a kind of machine that produces an output value f(x) in its range whenever we feed it an input value x from its domain.

FINDINGS

At the end of our presentation of the function concept , we assigned a homework of "to read the function topic and do related exercises from their book" . Next week, we gave a short quiz asking the same question of the previous - quiz. No body was able to give the exact definition of the function concept in the second quiz also. Most of the students said that x=2 and y=5 are not functions because 2 and 5 are constant numbers. All of the students said that $y^2 = x$ and $x^2 + y^2 = 9$ are functions. Again all of the students said that $4y - 3x = 8$ is not a function. Also they could not give correct answers to the (f) and (g) parts of the quiz.

Most of the students entering university's social branches are not prepared in high school to be successful in General Mathematics course at the university. Those students need a lower level of General Mathematics course such as Pre- Calculus thereby improving their learning process .

CONCLUSIONS

In general, the readiness of the high school students at the General Mathematics Course is very low and alarming . For instance, their Function Concept which is very basic in mathematics is lacking. Today, according to my personal experience as a lecturer, there is no widespread concern over the lack of preparedness of students making the transition from school to university mathematics. One reason for this lies in the fact that a large number of higher education institutions are accepting students from a much wider range of academic backgrounds than was formerly the case.

To teach mathematics with a lecture method at the university level is not recommended. Constructivist approaches are needed to replace the traditional behaviorist teaching approach at the university level also .

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THE HIGHER EDUCATION SYSTEM: A COMPARISON OF STUDENTS AND UNIVERSITIES OF HIGHER EDUCATION OF BRAZIL AND TURKEY

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Abstract: The higher education has been directly associated with human, economic and social development, for this reason the access and permanence in the university are envisioned goals by developing countries such as Brazil and Turkey. Both countries are classified by the World Bank as developing countries and are in the same index rating range of human development (HDI) by the United Nations Development Programme. This documental review study aims to present the analysis of a comparative mapping between students aspects of Higher Education of Brazil and Turkey. To this end, it was used the data published in 2013 by the National Institute of Studies and Educational Research Anísio Teixeira (INEP), a federal public entity under the Ministry of Education of Brazil and The Council of Higher Education (Yükseköğretim Kurulu, YÖK) of Turkey, with 2012 as the base year. In addition to the general data of the two countries has been presented and analyzed information on the particularities of higher education institutions regarding their classification as public and private. It was observed that the Brazilian and Turkish reality differs in both quantitative and qualitative aspects, such as the number and types of educational institutions, the forms of student enrollment at the university and enrollment in public and private institutions. On the other hand, there are similarities that point to universal trends such as the current increase of female presence and democratization efforts of higher education. Although the forms of access to higher education differ substantially between these countries, there are common challenges involving the inequalities in higher education, following the population growth and the demand that meets aspects that shape the standard in quality education.
Keywords: Higher Education, Enrollment, Students, Brazil, Turkey, Social Development.

INTRODUCTION

Education can be indicated as one of the main influences in relation to the standard of living of a society. The standard of living of a society depends on the capacity it has to produce goods and services, so the variation in living standards are associated with differences in productivity, and quality of goods and services produced in an hour of work (MANKIW, 2004). In countries where workers have a lower productivity rate, most people live on less comfort. In terms of the economy, the formation of an adequate workforce can be a way to increase the quality and the economic capacity of a country, enabling society's living standards to increase. Every investment goes through a review process in relation to the return it can bring to the country and the industry in which the investment is being realized. In the case of education, this analysis can be measured quantitatively and qualitatively, in view of the possible relation of education and technological advancement, and superior performance of the economy. The qualitative return on the other hand should be looked at long-term return, as it is important to remember that the investment in education can not bring an immediate benefit to society and the economy's performance, but it is a benefit that will be acquired over time the development and investment in the sector, as previously mentioned.

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The initial development concept begins in the 60s with François Perroux. According to François Perroux the development represents changes in a society according to the growth of the Gross Domestic Product (GDP) of the country.

Perroux (1983) also analyzes the development, indicating that it is a set of mental and social changes within a given population that decides to increase its global and real products in a cumulative and sustainable manner.

According to the World Bank information, the Gross Domestic Product (GDP) of Brazil in 2014 was $2,346 trillion. Turkey in turn has a GDP of $ 799 billion. The total of expenditure on educational intitutions as a percentage of GDP (%) of Brazil and Turkey was 6% and 4% respectively in 2012, according to the OECD 2014 report. The education thus makes up 19% of total public expenditure in Brazil, while in Turkey this figure is 11% of public expenditure in the country.

The proportion of expenditure on education in relation to the Gross Domestic Product depends on the preferences of the different public and private actors in the country. During times of financial crisis, even basic sectors such as education may suffer budget cuts.

The minimum that can be expected from developing countries that are seeking for economic and social growth, is that their governments work to equalize the percentage of investment in education relative to GDP as performed by developed countries. Given the knowledge, the ability to process and select information are a vital raw material in industrialized and highly developed countries.

Public expenditure on education, both in Brazil and Turkey still present to be below the figures presented by developed countries. In an educational system in which the investment in education is low, the composition of society in terms of formation of its citizens is greatly affected.

The development is no longer associated with the simple idea of economic growth, in order to become part of the socio-cultural transformation as an essential factor in the overall progress of human communities.

However the development and social progress is not possible without an educational endeavor for the transformation of mental structures and the institutional framework of traditional society.

The lack of qualified workforce and technicians at different levels and sectors of economic activity generated by the poor quality and lack of access to education at all levels is a difficulty often mentioned as a direct cause for the economic underdevelopment, making it impossible to achieve a satisfactory pace growth.

According to Gentili (1999) education and its relation to the work can be understood under the Theory of Human Capital, designed to perform the practical training professionals overwhelmingly for simple work.

Investment in human capital is so important for better productivity and positively impact the economy of the country. Considering globalization and technological progress over recent decades, new skills are required, as well as a competent and high-level technical training. Economic growth, ie exclusively in terms of GDP, is insufficient to ensure the human development necessary to adapt to a changing world.

Considering that Brazil and Turkey present economic similarities, and having in mind that the economic indicators are insufficient to express the development and setting in relation to social questions, non-economic, but which directly affect the country's growth, it sought to evaluate the item higher education.

Social Development

Having as a premise the idea that economic indicators are insufficient to assess the political, social, as well as components of freedom and culture in a country, the Social Progress Indicator was created in 2013 in order to have a holistic view of development of a country, prepared by the Social Progress Imperative organization, a non-profit organization, based in the United States. Three dimensions are taken for analysis as follows: Basic needs, foundations of wellbeing and opportunity. One of the factors discussed in the dimension Opportunity is the access to advanced education component describing different aspects of the extent to which Individuals are able to pursue their own objectives to the best of their ability.

As a result of Social Progress Index 2015 Brazil achieved the score of 70.89 and ranked in 42nd place, while Turkey received the overall score of 66.24, ranking 58th place.

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By analyzing the report and methodology that assesses 133 countries it can be observed that 45% of countries are above average in both overall score, as well as in the component of access to higher education. 11% of countries that score below average in social development presents a satisfactory level in the question of access to higher education. It is interesting to note that only 5% of countries rated below average in social performance was satisfactory level of advanced education. Showing the link between social development and access to advanced education.

Another nonprofit organization which emphasizes the link between education and social and economic development of a country was UNESCO, which launched along with the Global Monitoring Report Team EFA 2015 an exhibition entitled "Education Counts" highlighting the importance that education plays in all Millennium Development Goals developed by the United Nations.

Among the points analyzed and compared by the two organizations is the increase in individual income according to the extra years of study, and also a positive impact on the average annual GDP.

It is observed that education has become an important factor for the development and quality standards which are important for international competitiveness and growth of the country.

THE HIGHER EDUCATION IN BRAZIL AND IN TURKEY

The Brazil or the Federative Republic of Brazil, has a land area of approximately 8.5 million square kilometers and a population over 200 million people. That would be the equivalent of 10 times the size of Turkey in the area and three times the population. There is a sociodemographic differences between Brazil and European and Asian countries, such as Turkey.

Regarding to The Republic of Turkey, or simply to Turkey, the country has a population of about 80 million people, and 13 million of them live in the city of Istanbul, the largest city in Turkey.

Brazil and Turkey differ in sociodemographic characteristics but have similarity in terms of the educational system, such as mandatory service from the government for a specific period of years. The compulsory education in both countries is for a period of nine years. In Brazil, the compulsory education is provided for the ages of 6-14, and being officially free government, bond to availability only for this age group.

According to the Law of Guidelines and Bases of National Education (Law 9394 of December 20, 1996) some of the higher education purposes are: to encourage cultural creation and development of thought; train professionals qualified in different sectors of society, encourage research and scientific research, etc.

The main differences between the education system in Brazil and Turkey is performed regarding the amount and type of higher institutions. These differences affect access to university and how to offer to students. While in Brazil 87% of the institutions are private, in Turkey these institutions represent less than half, 38% of private institutions. As can be observer in Table 1 presented below, considering the number of institutions according to census 2012 years base 2011 by both countries. It is noteworthy that the private institutions in Turkey, unlike Brazil, are made only by foundations, not being allowed the opening of higher education institutions by business groups, with commercial or profitable purpose.

Tabela 1 . Number of Institutions of Higher Education in Brazil and Turkey (2011-2012)

Country	Number of Institutions				
	Total	Public	%	Private	%
Brazil	2.416	304	13%	2.112	87%
Turkey	165	103	87%	62	38%

Sources: INEP - National Institute of Educational Studies and Research Anísio Teixeira of Brazil, census 2011-2012; The Council of Higher Education (YÖK), 2011-2012.

Another factor compared between countries was the number of students and the number of places offered in 2011, as well as the number of applicants by type of institution, making it possible to check the competition faced by students who wish to enter higher level in Brazil and Turkey. While in Brazil a few students have access to higher education through a public institution in Turkey only 5% of students are enrolled in a private institution. This is also observed in the number of vacancies offered in these institutions.

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Tabela 2. Number of Students of Higher Education in Brazil and Turkey (2011-2012)

Country	Number of Students				
	Total	Public	%	Private	%
Brazil	7.037.688	1.897.376	27%	5.140.312	73%
Turkey	4.303.550	4.069.342	95%	234.208	5%

Sources: INEP - National Institute of Educational Studies and Research Anísio Teixeira of Brazil, census 2011-2012; The Council of Higher Education (YÖK), 2011-2012.

Competitiveness rate for students interested in joining a public institution in Brazil is 11.03. An extremely high number considered the same rate for Turkey, being 1.26. When there is the competitiveness rate for private institutions, Brazil has a number of 1.29 and 0.82 in Turkey.

Another aspect that was evaluated is the evolution of women's access in higher education between 2009 and 2012. The nationally participation of women in Brazilian universities has increased gradually but not in a significant way. However, compared to the number of enrollment of men, the percentage is higher, especially in 2009 when there was a decrease in the number of male enrollment.

The same trend can be seen in Turkey, indicating that women have increasingly gained ground in the country's universities. The number of women enrollment is 2.1% greater than that of men in the overall average during the years analyzed.

Tabela 3. Evolution of Enrolment in tertiary education, all programmes, female and male

Year	Brazil		Turkey	
	Female	Male	Female	Male
2009	4,6%	-0,1%	14,4%	12,6%
2010	6,6%%	6,8%	18,6%	15,9%
2011	5,3%	5,6%	9,1%	6,3%
2012	4,8%	3,6%	12,9%	11,9%

Sources:Databank of The World Bank İndicator.(Enrolment in tertiary education, all programmes, female and Enrolment in tertiary education, all programmes, total)

Tabela 4. Number of Places Offerend and Applicants of Higher Education in Brazil and Turkey (2011-2012)

Country	Number of Places Offered				
	Total	Public	%	Private	%
Brazil	4.653.814	610.718	13%	4.653.814	87%
Turkey	752.792	654.194	87%	98.598	13%

Country	Number of Applicants				
	Total	Public	%	Private	%
Brazil	11.957.756	6.738.819	56%	5.218.937	44%
Turkey	907.513	826.289	91%	81.224	9%

Sources: INEP - National Institute of Educational Studies and Research Anísio Teixeira of Brazil, census 2011-2012 ; 2011 ÖSYS kontenjanları ile ösym' ce bu birimlere yerleştirilenler.

Because there are more candidates than vacancies in the courses and Brazilian public schools, it is common for many students during the course or after high school spend up to two years to prepare for these exams, which often involves tutoring and supplementary courses.

By analyzing the number of teaching staff in each institution however, the figures presented by Turkey are below Brazil, indicating that the number of teachers per student is low, possibly affecting the quality of service provided by these teachers service, given that the same teacher needs to supervise / assist a greater number of students. In Brazil the same professional can perform activities in a public and private, working as hourly and not playing full-time activity in the institution, this difference could explain Brazil's best performance in this regard.

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Tabela 5. Number of Teaching Staff in Higher Education in Brazil and Turkey (2011-2012)

Country	Number of Teaching Staff				
	Total	Public	Staff per Student	Private	Staff per Student
Brazil	362.732	150.338	12,62	212.394	24,20
Turkey	108.462	95.891	42,44	12.571	39,68

Sources: INEP - National Institute of Educational Studies and Research Anísio Teixeira of Brazil, census 2011-2012; The Council of Higher Education (YÖK), 2011-2012.

BRAZILIAN HIGHER EDUCATION SYSTEM

The Brazilian higher education system has a complexity, ruled by the Guidelines and Framework Law (LBD). The Ministry of Education (MEC) ensures the homogeneity of educational legislation in the country, along with the Department of Regulation and Supervision of Higher Education (beings). The classification of higher education institutions (HEIs) in the country is up to date in two ways:

• Public institutions (with federal, state and municipal levels);
• Private institutions, being an organization with its own legal personality, with or without profit, which may be a community character of organization, religious, philanthropic or private.

The registered private institutions in the country has is a possibility of charging tuition at all educational levels and are not allowed to receive public funds. However, on 20 December 1996 the Law n. 9394 was established allowing private institutions to compete with the presentation of projects for the development of research and postgraduate studies. The private higher education in the country represents a considerable amount of financial resources, estimated at about twice of what is spent by the federal government for example in public higher education institutions.

The private category concentrates 87% of the enrollments of the country. The graduation courses access this large volume of students in private higher education has been possible because there is a wide variation in the amounts of fees between private HEIs. In addition, the access and enrollment in private higher education institutions have been encouraged by several national incentive programs to students with poor economic conditions (such as Fies, ProUni, Reuni, among others), as well as grants and private programs created by private HEIs.

In 2004 a public policy was adopted in the country to encourage the entrance of low-income population in higher education courses in Brazil through the program Universidade para Todos (ProUni) - *University for All Program* - for undergraduate and sequential courses is what he had greater representation in the input private higher education institutions. The program consists of a project created by the Federal Government and the Ministry of Education which provides integral or partial studies scholarships (50% of tuition) for the high school students graduating from public or private schools with household income per person of maximum of 3 salaries.

The selection process is computerized and impersonal, in which the candidates are selected according to the grades obtained by the National High School Exam, being used as selection criteria the quality and merit of the students, considering the academic performance. The private higher education institutions who are interested in join the program must register for the program and after acceptance receive tax incentives for accession.

According to the 2012 census, based on 2011 data (INEP, 2015), Brazil currently has 2.416 HEIs, which 87% are private institutions and only 13%. In southern Brazil, there is a predominance of enrollment of the campus undergraduate courses in private universities, and not in private colleges as in the rest of the country.

The Brazilian higher education may still be in face or distance learning modality. According to 2012 census (INEP, 2013), the typical student face higher education in Brazil, at the undergraduate level, studying at night, is female and is studying a BA in private HEIs, averaging 18 years in the enter and completing the studies after 23 years. All these features remains for the typical student in higher education at a distance, except for choosing the degree courses and have 30 years as median age.

The Brazilian higher education system requires pre-requisites or selective tests for admission to the higher education institutions. The entrance test is the most traditional way to test the knowledge acquired in high school, and cutoff points classification. They are held once or twice a year depending on the HEIs, having a fee paid by the student.

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The National Secondary Education Examination (ESMS) consists of knowledge and writing tests, is free but requires the voluntary participation of the student and HEIs offering vague. Other HEIs opt for more personalized and less systematic selection processes, using interviews, personal or school information prior candidate, writing or simple knowledge tests.

On the other hand, higher education in Brazil, in general, is not structured to follow a curriculum by fields of knowledge. Thus, most of the HEIs students studying specific disciplines only for its graduation, making it almost impossible to transfer from one course to another without great loss in harnessing of the subjects already routed.

TURKISH HIGHER EDUCATION SYSTEM

The formal education in Turkey consists of the pre-school, primary, secondary and higher education. Pre-primary Education includes the education of children aged 3-5 years who have not yet reached the age for compulsory primary education on a voluntary basis. Primary education covers the education and training of children aged 6-13 years old. It includes both primary and secondary schools, each lasting four years. Primary education is compulsory for all citizens and free in public schools.

The Turkish Higher Education includes all post-secondary institutions, and offers at least two years of formal education. After graduating from high school, students are able to enroll in higher education, which is compatible with the system of three cycles of Bologna. Turkey has actively participated in the Bologna Process, which defines the European Higher Education Area (EHEA).

The Bologna Process aims to create a European Higher Education Area in order to strengthen the competitiveness and attractiveness of European higher education and promote student mobility and employability by introducing a system based on studies undergraduate and graduate with easily understandable programs and diplomas. Quality assurance has played an important role from the beginning.

The administration of higher education in Turkey was structured in accordance with the new Higher Education Act (No. 2547) in 1981. The system became centralized, with all higher education institutions are linked to the Council of Higher Education (Yükseköğretim Kurulu, or YÖK).

After this restructuring in the Turkish educational system, all higher education institutions were designated as universities. Higher education across the country has been expanded to apply to higher education was centralized, and a central university exam and placement were established. In addition to state universities, private universities, and these nonprofit organizations foundations began to be established.

The Higher Education Institutions can be classified as follows: Universities, High Technology Institutes, Post-Secondary Schools Professionals, Other Higher Education Institutions (Military and Police Academies).

Types of education in Turkey is: Traditional Learning, with face-to-face classes, where students are required to attend their courses or practical workshops and distance education. Since 1982, the the Faculty of Education, University of Anadolu offers distance education, offering undergraduate courses lasting two years to four years.

Most of the institutions of higher education, the education of primary language is Turkish, though some universities use English, German or French as the language of instruction. In such cases students receive a year of preparatory classes for the required proficiency in the language to be used in the classroom. Some universities also have programs in which about 30% of the courses use English as the language of instruction. In recent years, the number of universities using English as a medium of instruction has increased significantly. In addition, most universities using Turkish as a medium of instruction currently seeking also offer English courses in the programs.

For admission to all undergraduate programs in Turkey, a diploma valid high school and a sufficient score in the selection and placement of students (YGS and LYS) are required. The YGS and Lyss are central entrance exam administered by the Measurement Center, selection and placement of Turkey (ÖSYM).

The YGS is usually administered in April, while the LYS is usually applied in June, around the country simultaneously. Admission to postgraduate programs is carried out by higher education institutions. Admission depends on the score obtained by the candidate, usually considering the Entrance Examination for Higher Education (ALES), the average graduation, and the interview results.

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DISCUSSION

Considering the differences between both countries, it is evident the disparity in the number of private institutions in Brazil over public institutions. The number of vacancies also offered diverges as the different institutions.

Turkey in recent years has increased its number of private institutions, without changing however the constitutional form such organizations as non-profit foundations, unlike Brazil, where notes in the educational sector expansion and increase in these institutions, controlled mostly by business groups, linked to the private sector and business.

Seeking to meet the demand and increase the supply of places, providing greater access to higher education in Brazil, decades ago we saw the privatization of public services being offered by business corporations. Could this be an option for Turkey in order to meet the growing demand for higher education? Or the market opening could negatively affect the quality of education offered in the country? The increase in the number of private institutions in the country, however, need certainly be linked to greater regulation and control of these institutions in order to ensure the quality of services provided.

Another relevant factor to note is the teaching staff in higher education institutions both in Turkey and in Brazil. Certainly the number of professionals working directly with students impacts the quality of training and thus the professional who will work for the labor market. As well as the quality of life and levels of satisfaction of those teachers and students.

In Brazil, the same teacher has the possibility to work in one or more institutions, working an hour. Thereby, the time spent in the institution is availed so that there is hand downtime of qualified workers. For Turkey, many teachers work directly and are part of the academic frame of only one institution, not teaching classes at other institutions. Therefore, this academic professional is connected to the organization and there is no interaction between the institutions in this level.

It was also noted by the data analyzed an increase in the number of women in higher education. It is important to note that countries with public educational policies well established, with democratic access from the pre-school years through high school, increase the chance dese have high rate of predisposed people to enroll in higher education without facing anxiety and competition some degree interfere with the learning process, of discouragement or due to some source of discrimination, as gender discrimination.

FINAL CONSIDERATIONS

Through this documentary study, it was found that the Brazilian and Turkish reality differs in both quantitative and qualitative aspects, such as the number and types of educational institutions, the forms of student enrollment at the university and enrollment in public and private institutions.

On the other hand, there are similarities that point to universal trends such as the current increase of female presence and democratization efforts of higher education. Although the forms of access to higher education differ substantially between these countries, there are common challenges involving the inequalities in higher education, following the population growth and the demand that meets aspects that shape the standard in quality education.

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THE INTERACTIONAL FEATURES OF ENGLISH CLASSROOM DISCOURSE IN THE MUĞLA CONTEXT

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Abstract: In the literature, there is a call for research with accounts for research for localization of teaching practices (Çakıroğlu & Çakıroğlu, 2003; Walsh, 2006; Sert, 2010). As a response to that call, this study sets out to explore possible areas of improvement in the language teacher training program based on real classroom data in the context of Muğla. Lessons from 10 state school English teachers of varying experience and 7 teacher trainees from Muğla Sıtkı Koçman University were recorded, transcribed and analyzed according to Walsh's (2006) "Self Evaluation Teacher Talk (SETT)" framework. A qualitative, ethnographic research perspective is adopted. The trustworthiness of the research is ensured by various strategic undertakings. The findings confirmed the same pedagogic goals and interactional features pertaining to each mode described in the SETT framework. There have been observed, however, additional pedagogic goals in managerial, materials and classroom context modes along with some context specific interactional features.

*This study is based on a PhD dissertation accepted at Gazi University.

INTRODUCTION

The research gap this research addresses is that teacher education is not localized. A common problem is that "education faculty give their teaching too little attention, do not model what is known about effective teaching (…) and stay away from public school classrooms" (Altan, 1998, p.407). There is virtually no lesson devoted to preparing the teacher candidates for the special interactional demands of the language classrooms in the cultural context of the particular classrooms they will work. In the program of ELT departments, there are lessons towards proficiency but these tend to aim developing students' general English proficiency. It is automatically assumed that they will be able to manage the classroom, conduct communication exercises, present new language and do all these in English without any special training. However, non-native teachers may actually need explicit training about the specific language areas as Willis warned us back in 1981,

> The usual pattern of teacher initiation, student response, teacher follow up is often disturbed because of misunderstandings, need for correction and clarification. Teacher initiations are often made up of several speech 'acts' each performing a different but necessary function; sudden switches from meaningful use of language to mechanical practice of the target forms can be confusing for the students – even native speaker teachers sometimes have problems here. On the whole, the non-native teacher is expected to be able to handle classroom English without any special training. (p.43)

Moreover, where training in terms of implementing the teaching techniques which are specific to ELT, trainers tend to use course materials which are based on the western perception of teaching-learning situations. In other words, the ideal lesson plans and good practices that are presented in the methodology books might be judged as "good practices" according to the author's own cultural values. As Çakıroğlu and Çakıroğlu (2003) state, however,

> "the knowledge produced in Western world has been built up over many years of intellectual and practical experience, conflicts, concerns and many other phenomena that characterize these

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> societies (…) this knowledge (…) may sometimes conflict with the structure of the Turkish society or at least are not understood in the same way (p. 261).

Thus, the need for providing teacher education according to the culture-specific interactional features of our own context dictates for us teacher educators look into the real classrooms and base our education on them. Sert (2010) also emphasizes this need in the following lines:

> Instead of directly adopting suggested western methodologies, CA based studies should be performed to see how unique interactional structures of Turkish language classrooms emerge. A framework like SETT, incorporated to the teacher education programs according to the contextual needs may reveal different interactional features for different pedagogical goals compared to its UK version. Therefore, using CA to analyze teachers' talk and learners' talk in Turkey, and building the bricks of language teacher education on this framework will be very useful (p.80).

As an answer to that call, this research sets out to see the interactional features of English classroom discourse in the Muğla context. Using Walsh's (2006) Self Evaluation Teacher Talk (SETT) as a guiding framework, it investigates the pedagogical purposes and the interactional features that emerge as a result of modes analysis on the collected data from 10 different English Language Teachers working at public schools in the Muğla city center.

INVESTIGATING THE CLASSROOM DISCOURSE

The early efforts to understand the classroom discourse were the interaction analysis (IA) systems and most of them were developed for the purposes of teacher training rather than research. IA approaches, which are based on behavioral psychology, typically use observation instruments and coding systems. Some prominent examples are Flander's Interaction Analysis Categories (FIAC), Moskowitz's Foreign Language Interaction System (FLINT), Jarvis's drill language categories and real language categories, Politzer's system developed according to the ALM ideal among early systems. Discourse based Interaction systems include Bellack et.al (1966), Fanselow's Foci for Observing Communications Used in Settings (FOCUS), Allwright's macro analysis and micro analysis system, and Allen, Fröchlich and Spada's Communicative Orientation of Language Teaching Observation Scheme (COLT) (as cited in Ellis, 2012). The advantage of both the early systems and discourse based interaction systems is that they are relatively easy to use and that they provide common terminology for the spreading and discussion of the conclusions.

Walsh (2006) offers a different division than Ellis (2012) and divides the observation instruments into two categories. The first category is system-based approaches under which Bellack et al; FIAC; FLINT and COLT are counted. Walsh (2006) argues that these system based approaches can give only a partial picture of the classroom discourse and offers ad hoc approaches which have the advantage of permitting "a finer grained understanding of a specific feature of the discourse." (p.45) Self Evaluation Teacher Talk (SETT), which was a product of conversation analytic (CA) study, is put under this category.

> Ad hoc approaches to classroom observation give participants ownership of the research design process and greater insights into the issues under investigation. By focusing on the detail of the interaction, such approaches allow practitioners access to and understanding of complex phenomena which might otherwise take years of class experience to acquire. Moreover, ad hoc interaction analysis allows attention to be devoted to the microcosms of interactions that might so easily be missed by the 'broad brush' descriptions provided by systems- based approaches (Walsh, 2006 p.44).

Self Evaluation Teacher Talk (SETT) is based on the idea that the teacher's talk is variable according to the pedagogical focus and that the concept of a single L2 classroom discourse is too broad. There is a "reflexive relationship between pedagogy and instruction in the L2 classroom" (Seedhouse, 2004, p.16), thus "the pedagogical goal in each mode inevitably shapes the interactional features of the language classroom" (Sert,

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2010, p.72). SETT comprises of four distinct classroom modes called Managerial Mode, Materials Mode, Skills and Systems Mode, and Classroom Context Mode. Each mode is described in terms of its pedagogical focus and interactional features. In his own words, Walsh (2003) describes SETT as follows:

> The framework is intended to be representative rather than comprehensive. The four modes depicted are quite clearly delineated by pedagogic goals and interactional features; while there are some similarities, there are also differences which make description possible. Yet the modes do not claim to account for all features of classroom discourse, nor are they sufficiently comprehensive to take account of each and every pedagogic goal. The main focus is on teacher-fronted classroom practice: interactions that are not teacher-fronted, where learners work independently of the teacher are not described. Rather, the framework is concerned to establish an understanding of the relationship between interaction and learning; specifically, the interface between teaching objectives and teacher talk. In essence, as a tool for teacher education, the framework has to enable teachers to describe interaction relatively easily and unambiguously. (p.127)

Although SETT is primarily intended for teacher's self-reflection, it can also serve, like in the present study, as a framework to explore the classroom interactions of other teachers. Another study which used SETT in this way is Humphries (2014) on code-switching in two Japanese contexts. Still another study is Howard (2010) in which a comparison of observed and non-observed lessons of two teachers is presented to see the possible effects of observer's paradox. The internal features of the lessons were analyzed using the SETT framework. Walsh & O'Keeffee (2007) used modes analysis on their data and worked only on the classroom context mode using both CA and Corpus Linguistics (CL). At the end of their analysis of the student interactions, they offered a list of classroom applications of the classroom context mode. Similarly, Walsh, O'Keeffe and McCarthy (2008) used modes analysis for vague category markers (VCMs) such as "so on", "so forth", and "etc" in academic discourse. SETT has been used as a data analysis tool recently by Yang (2014). In his study, he investigated the discourse markers in teacher's spoken discourse using a multi-layered analytical approach which contained corpus linguistics (CL), conversation analysis (CA) and "L2 classroom modes analysis" as analytical layers (p.292). In addition, SETT is used in variety of other contexts such as young learners (Wang, 2012) and on-line, (not face to face) lecture discourse (Lee, 2010).

METHODOLOGY

As mentioned earlier, the main question of interest in this paper is finding out the pedagogical purposes and interactional features of English lessons. The scope of the study is limited to Muğla context. A qualitative research design is used; therefore, no attempt to generalize the results will be made. This part will begin with a description of the research context. "Qualitative research findings are rarely directly transferable from one context to another" (Mackey & Gass, 2005, p.180). Thus, the duty of determining if the results of this research match to their context is left to the audience. For this comparison to be healthy, researchers of qualitative methods are required to provide a "thick description" of the context in which they worked (Mackey & Gass, 2005 p.180). In order to provide enough degree of thickness, this part will begin with a detailed description of the research context, participants and data collection procedures. Then, issues specific to qualitative research such as research ethics and trustworthiness of the research will be discussed. Describing the limitations of the research contributes to its trustworthiness, so the section will be finalized by a discussion of limitations of this study.

Setting

The research took place in the state schools of different levels in Muğla. Since English teaching begins as early as 4th grade and continues till the end of high school education, all of the schools in the city centre are visited by the researcher. The project is explained to the English teachers working there to ask for their participation in the study. If the teachers accepted to participate, an observation date was scheduled. 19 teachers from various schools were scheduled to be observed in the 2011-2012 spring semester. These include 7 primary schools and 8 high schools. Another arm of the research laid on the 4th grade students of the ELT Department in Muğla Sıtkı

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Koçman University. Specifically, the microteaching presentations of some students during the practicum were recorded in order to triangulate the findings and validate the content proposal. The trainees' data for this research was collected during the 2013-2014 fall semester. The faculty had sent the school experience students to only the primary schools. The researcher had been given 3 groups of school experience students, each attained to a different mentor at a different school. Thus, the trainees worked with 3 mentors at 3 different primary schools. The school experience is on the last year of the curriculum. This means that trainees are considered to be nearly ready for actually beginning teaching as a profession. They have got and usually passed most of the important methodological courses of the curriculum by this time. Thus, it can be argued that the observations have been timely.

Participants

The trainees who participated in this study were chosen according to convenience sampling technique. To define, "this category of sample relies on available subjects – those who are close at hand or easily accessible. For example, it is fairly common for college and university professors to use their students as subjects in their research projects" (Berg, 2001 p.32). There were a total number of 15 trainees enrolled in the practicum course. The trainees whose lessons formed the trainees' data (TR's Data) were picked from among this group according to the suitability of their schedule to the researcher's schedule. In addition, the researcher tried to choose trainees who had a good attendance record. The TR's Data was collected from a total of 7 trainees, 4 of whom are males and 3 females.

The English teachers who were used for the formation of teachers' data (T's Data) were reached after a very careful and grueling process. The first step was visiting all the schools in the city center of Muğla. The researcher met the English teachers at each school and explained broadly the topic of the research and how the observations will be used. An initial observation date is set with the 19 ELT teachers who accepted to participate. The second step utilized purposive sampling to choose 10 of these 19 teachers. The 10 teachers were chosen in the direction of advice from 3 different field experts. The experts were asked to choose the best and most promising ones for the research project. The expert board is assumed as capable of doing this selection because all of them have publications that have conversation analysis as their data analysis methodology. The chosen group of 10 teachers consisted of 4 males and 6 females (T's Data). 6 of the 10 teachers worked at a primary school, 4 of them, at a secondary level school.

In summary, 7 trainees and 19 teachers, a total of 26 people, participated in this study. 7 of the trainees and 10 of the teachers had their lessons video-recorded. These 17 participants constitute the major group of participants who provided the bulk of the data for this research.

Data Collection Procedures

Data was collected via non-participant observation, video recordings and field notes. The researcher used an observation form and video recordings during the initial data collection before the expert board's opinion. This phase also served as the piloting of the recording system. The primary data of this research comprised of two sets of video recordings. First, the recordings of the English teachers were used as a main data (T's Data). In order to obtain this data, the researcher first scheduled an observation date with the teachers. The choice of which class will be observed was left to the teachers. Two consecutive lessons were recorded per teacher. Only the second lessons are used for transcription and analysis. The purpose of having an extra first lesson was two-fold. First, the researcher wanted to habituate the classroom to mitigate the effects of observer's paradox. Secondly, the first lessons were used as a cross-check for confusing data in the second lessons. Longer periods of observation gave the researcher the opportunity to get a better feeling of the teacher's teaching style, thus better enabling her to interpret the incidents that took place in the second lessons. The second important set of data came from the recordings of the trainees' presentations within the practicum. These demonstration lessons by the trainees took place in the presence of their mentors. As in T's Data, the researcher scheduled the observation time and class beforehand together with both the trainees and their mentors. The trainees were asked to take the recording equipment to the class before the actual recording took place. By this means, habituating the equipment into the classroom environment was aimed. On the day of actual data collection, the mentors introduced the researcher to

the class assuring them that she is present in the lesson in order to observe the trainee, and not them. The researcher turned on the recorder a few minutes before the onset of the presentation and turned it off a few minutes after the end of the presentation so as not to miss any important event. As a result, T's Data consisted of 27h: 22m: 22s of footage whereas the TR's Data lasted 18 h: 37m: 20s. These recordings are transcribed by the researcher using the Jefferson's transcription system. At the end of the transcription process, the T's Data consisted of 58798 words while the TR's Data was 16369 words. In sum, the whole transcription consisted of 75167 words.

Analysis of the Data

This study is more akin to the "modes analysis" as described by Walsh (2006). The researcher began by taking an "unmotivated looking" stance. Mazur (2004) offers a step by step process for doing this. The first step is reading and re-reading the data carefully to identify sequences. "A sequence has usually ended when speakers are no longer responding to a prior action (initiation, repair), or topic" (Mazur, 2004 p.1085). After selecting either a purposive or an arbitrary segment, the second step is characterizing the sequence. Questions such as "what is the speaker doing in this turn?" or "What is the meaning of this interaction?" are asked. The final step is considering the rights, obligations and expectations constituted in the talk. At this step, unique patterns are documented and observed.

In terms of T's Data, the researcher began by preparing the data for analysis. This included color-coding the lessons according to the modes described in the SETT framework and combining field notes in the form of hand-written notes on the margins of the transcription. "A modes analysis recognizes that understanding and meaning are jointly constructed, but that the prime responsibility for their construction lies with the teacher" (Walsh, 2006, p. 63). Thus, the second step was to identify the purpose and nature of each move by the teacher. These interactional features are coded and marked on the text like "teacher echo (coded as I1 and I2); display question (coded as M1 and M2) Focusing on meaning or content (coded as C), etc. ". These representations made the patterns more visible. By this way, the interactional patterns and unique characteristics of interactions in each mode were identified. Once the researcher got an initial impression of a pattern, she checked it against data to find further instances. These ideas are then discussed in the data analysis part using extracts. The extracts are chosen very carefully. The researcher looked for a convenient extract that best demonstrates the situation and the shortest sequence that allows for the most number of issues to be discussed.

The same procedure is done for the TR's Data. The researcher transcribed it, prepared it for analysis, and carefully looked for patterns and evidence in the data. Since this data was smaller than T's data, the findings are compared to those of T's Data very often. This was done not to generalize them over every T's and TR's but to make sure that the situation is understood more clearly.

Research Ethics and Trustworthiness

The researcher accepts all the responsibility to anticipate and address the ethical issues that may arise in this study. The consents of the participants are granted at every level of the study. Their privacy is protected by not using any names and by not giving unnecessary information that could reveal the participants' identities. The recordings are kept under password protection and are not shared with third parties in any way. In addition the researcher tried her best to maintain the cost-benefit balance for participating in this study.

The quality of this research will be justified using Lincoln & Guba's Taxonomy. (as cited in Dörnyei, 2007). These are credibility (instead of internal validity), transferability (instead of external validity), dependability (instead of reliability) and confirmability (instead of objectivity). The credibility of this research was ensured via several maneuvers. Shenton (2004) says that adoption of research methods well established the methods of data analysis should be derived, where possible, from those that have been successfully utilized in previous comparable projects increases credibility. Using the SETT framework was a step taken for this purpose. SETT is originally designed for teachers (i.e. non-academicians) to analyze their own lessons. It was used to understand the classroom interactions by the teachers (Moser, Harris & Carle, 2012; Walsh, 2003) and even by trainees (Sert, 2010) in several studies. Shenton (2004) explains further that "prolonged engagement" is another way of

increasing credibility (p. 65). This means developing an early familiarity with the culture of the participating organizations. The researcher recorded more than one lesson for each participant. The first observations were not used for analysis. These were for "habituation" that is, for introducing herself to the environment as much as possible so that the results would not be influenced. Moreover, the observation schedule was distributed through the semester as far as possible. In addition, the researcher triangulated the data in terms of both procedures and participants. The issue of transferability was addressed by providing thick description of the research. Dependability is related to the question what would happen if we repeated the study. Shenton (2004) emphasizes that the text should include sections devoted to the research design and its implementation, the operational detail of data gathering and reflective appraisal of the project, so that other researchers can replicate it if they wish. This was provided by thick description of the research process, just like transferability. A final criterion, confirmability was attained by the discussion of results. In the relevant sections, the researcher compared her findings with other research, discussed the preliminary theories that were falsified and discussed the limitations of the study. By these means, the researcher aimed to provide some transparency of the process. In addition, the researcher always made very clear in her written discourse what are the actual findings and what are the researcher's personal contentions.

Limitations

Although the researcher took many steps to ensure the qualities of reliability and validity in her research, there have been some limitations that must be addressed. First limitation is the number of participants. Only 10 teachers' lessons were recorded. Although they were chosen as the best teachers among the volunteers by the board of experts, they were nevertheless only ten teachers. A finer picture of the situation could have been emerged if the number of participants increased. Similarly, it was possible to make recordings of only 7 trainees, all of whom come from the same background. (i.e. ELT department of Muğla Sıtkı Koçman University) If it were possible to collect data from presentations of more trainees, or if it were possible to include trainees from other backgrounds, many issues that remained as question marks in this research would be enlightened. Additionally, this research depends on the analyses of the data in a turn-by-turn fashion and from an emic perspective in ethnographic research. Other techniques of analyses such as discourse analysis, corpus concordance analyses and interaction analyses could also have been used to further refine the areas and identify the contents. Such different data analysis procedures could have produced different results since each look at the data from different perspectives.

A SAMPLE DATA ANALYSIS

Because of space limitations, full data analysis cannot be provided in this report. Thus, analysis of one extract will be presented as an example to reflect the full data analysis process. The following extract comes from the managerial mode in teacher 2's lesson. This extract is chosen because it is the first extract in the analysis process. T2's lessons are analyzed in the same way for other modes too and a mode-by-mode analysis is done in the same way for each of the other teachers. All results are compared with trainees' data for triangulation purposes.

In his lesson, T2 tries to maximize the use of English in his managerial mode using three main instructional strategies. The first strategy is translating an utterance or part of an utterance. He repeats the same message in two languages. The second strategy is talking to himself aloud in English. He prefers using English for turns or part-of-turns which do not require a next turn. The third strategy is that he establishes routines to minimize the need for any Turkish during the instruction phase of a particular exercise.

Extract 1 depicts more than one typical pedagogical goals of the managerial mode, namely, to organize the physical learning environment, to refer learners to materials, and to introduce an activity. In addition Extract 1 sets an example for his use of the first and second strategies.

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Extract 1

1	**T2**	because of the television and television that's it and we have a car we go somewhere
2		else ok and now we got back to- do we have anything else what's the time *saat kaç saate*
3		*bakalım*
4	**S**	*üç dakika var*
5	**T2**	ok *peki o zaman birazcık şöyle yapalım* ((opens a Google visuals page searchs sports))
6		*şunlardan bazı sporlardan şu soruyu soralım bakalım*
7	**S**	*sporlardan mı*
8	**T2**	*evet sporları kullanabiliriz resimler şurda hangi sporlar var hemen hemen hepsi var*
9		tennis *bu* tennis basketball ah this one
10	**S**	*pon pon kızlar*
11	**T2**	oh cheerleaders *pon pon kızlar* cheerleaders cheerleaders *değil mi emre sen bilirsin*
12		*nasıl yapıyor onlar böyle hani* ((wiggles his arms))
13		((laughter))
14	**T2**	heh heh just a joke I used to play this one golf golf, basketball *bu soruları sormanızı*
15		*isteyeceğim birkaç spor yapalım resmini gösterdiğim sporu arkadaşına soracaksın*
16		you're gonna ask when I show ok for example we've got a lot of sports here can you
17		see that can you see can you see it do you understand can you see that *şu da*
18		*azıcık büyüsün görülebiliyor mu çocuklar*
19	**S**	*evet*
20	**T2**	so *orayı kullanacağım orası güzel neredeydi o kaçırdık mı onu*
21	**S**	*biraz daha aşağı*
22	**T2**	*biraz daha mı aşağıda şurda* ok *ha evet* this one
23	**S**	volleyball
24	**T2**	volleyball did you use to play volleyball ok and you answer yes or no *bugün ne oldu*
25		*herkes uyuyor* (…)

In the Extract 1 above, we can see his train of thought and how he comes to the decision of introducing a new activity. The moment he decides that the activity is over is when he says "that's it" in line 1; "ok and now we got back to-do we have anything else" in line two. He switches to the managerial mode in order to introduce a new activity at the end of line 2. He wants to set a new task, so he begins by asking the time first in English, then in Turkish. The student in line 4 identifies the question as a request for the remaining time and answers accordingly; "üç dakika var" (3 minutes left). Then, he opens a Google page to set a question and answer session with the pictures. The first part of the instruction is given in line 6: "şunlardan bazı sporlardan şu soruyu soralım bakalım" (let's ask this question from these pictures these sports in the pictures). Through lines 6-13 we see how he shares the interactional space with one of the students sitting in the front row. The student is apparently interested in the upcoming task and joins the teacher's think aloud process in line 7 by asking about the instruction: "sporlardan mı" (about the sports?) T2 seems to be deeply engaged in the task of finding suitable pictures from Google page until the student reacts to one of the pictures which depicts basketball cheerleaders by saying "pon pon kızlar" (cheerleaders) in an audible way in line 10. T2 takes up the turn and gives the English equivalent of the word. He draws the attention of the other students to the word by making a joke which hints that the student is a little too much interested in the cheerleader girls in lines 11 and 12. He says "değil mi emre sen bilirsin nasıl yapıyor onlar böyle hani" (lit. don't you emre, you know how they do it like this). The laughter from the class can be considered as evidence that the attention is successfully drawn.
Through lines 1-13, his first strategy is visible. At various places in the interaction, he provides the English equivalent for what he says. For example, in line 2, he asks the time in English first. The conversational token "ok" is repeated with its Turkish equivalent "peki o zaman" in line 5, and "pon pon kızlar" translated into English, back to Turkish and back to English again in line11. This strategy continues through the subsequent parts; for example, "can you see" in line 17 and "görülebiliyor mu çocuklar" (is it visible children?) in line 18.

The second strategy he uses is most visible after the 14th line. Seemingly, the utterances at the beginning of line 14 do not require a next turn. Still, he says them in an audible way and in English. This seems to be to increase the time that students are exposed to the language. Line 14 begins with "heh heh just a joke" which does not receive any next turn. The intonation of the teacher is fall tone, so he just uses this to finish the laughter. Then another piece of information which does not require an answer from the students comes; "I used to play this one

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golf" He wants to expose the students to language that will be required in the upcoming task, so he makes an implicit modeling here by thinking aloud about the pictures in English.

In line 15, the second important element of the instruction is given in Turkish, and it is repeated in English in line 16. Students had been told that they would be asking questions related to the pictures. Now, they are told that they will ask the question upon the visual cue from the teacher: "resmini gösterdiğim sporu arkadaşına soracaksın" (you'll ask the sport I show to your friend) in line 15 and "you're gonna ask when I show ok" in line 16. The instruction is completed when the question to be asked is provided in line 24: "did you use to play volleyball and you answer yes or no".

Through lines 14-25 we can observe many instances where the teacher uses English tokens as he speaks. For example line 20 begins with "so", line 22 contains "ok" and "this one". The communicative functions of these utterances are easily accessible from the surrounding Turkish, and they do not require a response in the next turn. Thus, these can be considered as part of his strategy of thinking aloud in English to increase the amount of language that the students get exposed to.

RESULTS

All of the driving principles of SETT were all confirmed in this study. Namely, Walsh (2006) argues that the classroom context is composed of four different modes. "Using the term mode encompasses the interrelatedness of language use and teaching purpose" (Walsh, 2006, p.62). This study confirmed that teaching purpose and the nature of interaction are related. That is, there is an "interface" between what we say and why we say it (Seedhouse, 2004). As far as the observations revealed, the English classrooms work in differing micro-contexts for both the teachers in T's Data, and the trainees in TR's Data. Given the multiplicity of different other studies which provided support for a variable approach (Johnson, Jarvis & Robinson, Kumaravadivelu as cited in Walsh, 2006; van Lier, 1988, Seedhouse, 2005; Walsh & O'Keeffe, 2010; Tsay et.al., 2011), it can be safely claimed there is not a single type of discourse, but varieties of discourse within it in any culture or in any classroom.

In SETT, the number of the modes are identified as four, but Walsh (2006) admits that "there are almost certainly other modes which could be incorporated" (p. 64). It was discovered that in the context of this particular study, all of the four modes exist as described in SETT. There are, however, some cases where the modes have additional pedagogic goals (managerial mode), or two modes merge together to form a hybrid mode (while line-by-line analysis during skills and systems mode) and sub-mode forms in which the interactional features are completely different (classroom context mode). In addition, the pedagogic goal practicing sub-skills is listed in the skills and systems mode in SETT, but in T's Data and TR's Data sub-skills are typically referred to during materials mode. Some key findings about the pedagogic orientations and interactional features during each mode in the data are summarized in the following table.

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Table 1. Pedagogic Goals and Interactional Features in the English Classroom Discourse in the Muğla Context

Mode	Pedagogic Goals	Interactional Features
Managerial Mode	Giving instructions and homework Arranging the physical environment Managing the behavior of students Transition between the phases of lesson	A single extended teacher turn in L1 or L2 Short, formulaic language for familiar situations (routines) Transitional markers both in L1 and L2 Learner contribution in the form of clarification request, offer and collaborative thinking
Materials Mode	Conducting the material (becoming the voice of the material) Making the material accessible (becoming the inner voice of students) Opportunistic teaching	I-R-F pattern Form focused feedback Error correction Scaffolding Translation
	(the line between materials mode and skills and systems mode gets blurred)	Both modes have the same interactional features
Skills and Systems Mode	Bringing the focus on form. Providing language practice Making explanations	Teacher echo metalanguage
Classroom Context Mode	Sharing opinions, feeling and experiences Communicating in the shared history of the classroom community	Mostly in L1 Teacher-led Topic nomination by learners but topic termination always by teacher Topic returns to conventional language work
	(a sub-mode?) Providing feedback on students' performance	Mostly in L1 Initiated by teacher Not always produces a next turn

In terms of proportion, classroom context mode was found the least in the data where the most common modes were materials mode and skills and systems mode. This finding was in line with Lee (2010) in which the most frequent mode was the materials mode and the classroom context mode was excluded because it was not found in the data. Similarly, the most frequent modes were materials mode and managerial mode in Wang's (2012) data. Also, in Miri and Qassemi's (2015) data, materials and skills and systems modes were the most frequent ones while "less amount of classroom interaction was devoted to the classroom context mode "(p. 159).

One of the impressions from the data of this research was that the age of the students can be a factor on the distribution of the modes. The teachers of young learners had to stay in managerial mode for longer stretches of time than those of high school learners. Wang (2012) also found that restless classes resulted in mode side sequences with managerial mode. It can be concluded then, that young learner classes need to spend more time in the managerial mode than older learners. The second mode that seems to have relationship with age was the classroom context mode. Both in T's Data and TR's Data classroom context mode existed in very little proportion, if any, when the pedagogic goal is sharing opinions, feelings and experiences.

In terms of interactional features, the closest to the descriptions in SETT both in terms of pedagogic functions and interactional features were the materials mode and the skills and systems mode. In the other two modes, however, some features differ. In the managerial mode, SETT's description sets forth an uninterrupted, extended teacher turn but it is not unusual in the data that learners share the interactional space and join the managing process. On the other hand, classroom context mode, which is characterized by fewer and shorter teacher turns in SETT, is always in control of the teacher in the data of this study. Teacher control, lack of referential questions and focus on meaning during the classroom context mode are also discussed in Miri & Qassemi (2015).

In terms of pedagogic goals, all pedagogic goals are confirmed to exist more or less in the data and within the described mode with the exception that sub-skills are not addressed in the skills and systems mode as described in SETT, but during materials mode. Also additional pedagogic goals were identified in terms of managerial

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mode (arranging student behaviors), materials mode (opportunistic teaching) and classroom context mode (providing feedback on student's performance and communicating in class history). Since the interactional features are very similar, it is not uncommon in the data that these modes occur together or in mode side sequences. Especially, line by line translation for opportunistic teaching carries the pedagogic goals and interactional features of both modes. In the classroom context mode, two additional sub-modes were found. Especially providing feedback on students' performance is completely different in terms of the nature of interaction than the description in SETT.

The role of mother tongue is not accounted for in SETT, however, in this study it appeared repetitively in all four modes and in a multiplicity of ways. In managerial mode, L1 is used for complex instructions and homework. This finding is confirmed in other studies such as Sarıçoban, (2010); Yatağanbaba and Yıldırım, (2015), and Sali, (2014) who also found that using L1 for instructions is a common practice in Turkey. Similarly "dealing with procedural trouble" is listed as one of the pedagogical functions of code switching in Üstünel (2009, p.114). Mother tongue comes up as an interactional feature again in materials and skills and systems modes in the form of translation. Teachers used translation at the level of words, phrases and sentences as they are practicing or explaining something. It was offered both by students and by teachers and used frequently as a strategy. Moreover, in this data, a special way of using translation which blurred the line between the materials mode and skills and systems mode is discovered. Moreover, this mode is also found in another researcher's data. Ilın (2014) set out to find out the problems with the practicum program. Part of Ilın's (2014) data holds that mentors who were observed by practicum trainees are reported to "have developed a habit of conducting all the activities in the classroom in mother tongue without a visible necessity. Furthermore, mentors almost translate the entire coursebook and they even check the students' vocabulary knowledge using mother tongue" (p.192). In the same vein, Daşkın (2015) found very similar results to this study in that most of the modes appeared parallel to Walsh's description with the exception that teachers used translation in all modes. Finally, in the classroom context mode, L1 comes up again as a central and very important interactional feature. Almost entire classroom context mode in the data takes place in Turkish. Code switching problem is shown as the reason for our failure to teach English by the Turkish Ministery of Education (2013) and it is described as follows in the program for English lesson:

> While it is understood that there are many variables at work in this ongoing problem, it is believed that one of the main reasons for the failure of such a large number of Turkey's students to master competence in English lies in the fact that the language is presented to them as a subject to be learned in school – an academic requirement to be met – rather than as a means for communication. (p.2)

Since the teachers see English as a subject, the skills and systems mode and materials mode take place in English while managerial mode and classroom context mode tend to take place in Turkish.

The findings pertaining to the classroom context mode reinforces the contention of Ministery of Education that English is seen as a subject rather than a means of communication in our schools. As mentioned earlier in this discussion, the classroom context mode appears the least among the other four modes in the data. One reason for this scarcity might be that the teachers' effort to showing the researcher worthwhile lessons. This is a part of the observer's paradox and is validated in another study by Howard (2010). He compared model lessons which were planned to be observed by an observer and pedagogic lessons in which an observer was not present. He found that the model lessons followed a typical format causing fewer code-switches. The effort of the observed teachers was found to be evident in their concern to maintain an orderly classroom atmosphere, which resulted in significantly more managerial mode during the model lessons. In addition, teachers spoke in more words during model lessons (Howard, 2010). So, what these findings sum up to might be that the teachers might have avoided the classroom context mode on purpose because they did not see it as a legit part of the lesson.

When we stop and think what is excluded because labeled as not legit is the things that exist in the communicative history of the students with the teacher. This explains why students are allowed so little topicalisation. Although it falls out of the scope of this study, one thing that meets the eye is that methodologically Turkish ELT classes are still under influence of GTM and ALM and no trace of CLT could be

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seen at all. Despite all the teacher education since 1998 (World bank project) and all the materials designed according to CLT. Teachers find a way of using the book in the GTM or ALM way. It makes us think, may be CLT just does not fit to our perception of what a good lesson is culturally.

CONCLUSION

Walsh (2006) presented a general framework for handling the classroom discourse in SETT but it was impossible to see if these findings would apply to our research context until we actually observe and check it. Indeed, the findings of this research showed that although most modes were congruent, some differences in the perception of certain exchanges, especially classroom context mode have been identified. Markee (2015) emphasized the need to "engage in comparative re-production research in order to make broad statements about the generality and prototypicality of the qualitative organization of particular practices across languages, cultures and institutional contexts" (p. 1). To put in another way, the problem with these types of research is that generalizing is not possible. The knowledge is attained only by cumulating of the experience. It is hoped that this research can contribute a drop to the sea of research pertaining to classroom discourse.

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