# The Online Journal of Quality in Higher Education

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# Message from the Editor-in-Chief

Hello from TOJQIH

TOJQIH welcomes you. TOJQIH looks for academic articles on the issues of quality in higher education and may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should discuss the perspectives of students, teachers, school administrators and communities. TOJQIH contributes to the development of both theory and practice in the field of quality in higher education. TOJQIH accepts academically robust papers, topical articles and case studies that contribute to the area of research in quality in higher education.

The aim of TOJQIH is to help students, teachers, school administrators and communities better understand the new developments about quality in higher education. Submitted articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJQIH. TOJQIH provides perspectives on topics relevant to the study, implementation and management of quality in higher education.

We are always honored to be the editor in chief of TOJQIH. Many persons gave their valuable contributions for this issue.

TOJQIH will organize the ICQH-2019 (www.icqh.net) in December, 2019 in Turkey.

## Call for Papers

TOJQIH invites article contributions. Submitted articles should be about all aspects of quality in higher education. These research papers may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should also discuss the perspectives of students, teachers, school administrators and communities.

The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJQIH.

For any suggestions and comments on the international online journal TOJQIH, please do not hesitate to send mail to tojqih@gmail.com


**July 01, 2019**

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# DOES THE COMPOUND VESSELS LAW APPLY TO SECONDARY AND TERTIARY EDUCATION WORLDWIDE

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**ABSTRACT**
Although the higher education is not compulsory even in the highly developed countries almost every citizen has a chance to get access to universities or colleges. In developing countries however tertiary education is a privilege for the citizens at the upper level social strata. It is an investment to be made for social mobility upward. Is there a significant correlation between the quality of higher education and the quality of secondary education of the countries all over the world. The simplest and most repetitive measures of the quality in higher education and secondary education are world university rankings and country rankings in PISA respectively. In this paper the world university rankings of Times Higher Education (THE) and QS University rankings for the year 2018 are brought together. The final rank of any country is assumed to be the rank of the university at the highest rank from that country. The reason why for this choice is the fact that there are some small countries represented by a small number of universities in the list but on the other hand there are some countries represented with relatively large number of universities at relatively lower ranks. The final country rankings for higher education are matched with their rankings in PISA 2015. The rank order correlation has been found to be highly significant but far from being perfect unity.
**Keywords:** World university rankings, PISA, Higher education, secondary education,

**INTRODUCTION**
To begin with it deems to be appropriate to remind some brief but essential preliminary information about the "compound vessels" that appears within the title of this study.

compound vessels constitutes a whole system of vessels with different volumes and different cross section areas but interconnected with another horizontal vessel underneath them. When the system is filled up with some sufficient amount of liquid the top level of liquid will be observed at the same level. If the amount of liquid increases within the system the height of the liquid increases to the same level in all vessels. On the other way around when the liquid drains the height of the liquid levels along all of the combined vessels drops down to the same level. This is the simplest description of compound vessels. If there are different liquids which cannot mix the difference between the heights is inversely proportional with their density. For example if mercury and water are the liquids the height of the water is 13,6 times higher than that of the mercury. Because the mass of one unit volume of water is 1 gram but the mass of one unit of mercury is 13,6 gram. Let the height of the 1st liquid be h1, the height of the 2nd liquid be h2, the density of the 1st liquid be d1, and the density of the 2nd liquid be d2. In terms of these specifications h1/h2=d2/d1, or h1Xd1=h2Xd2. The visual and symbolic representation of these quantifications are demonstrated in Figure 1.
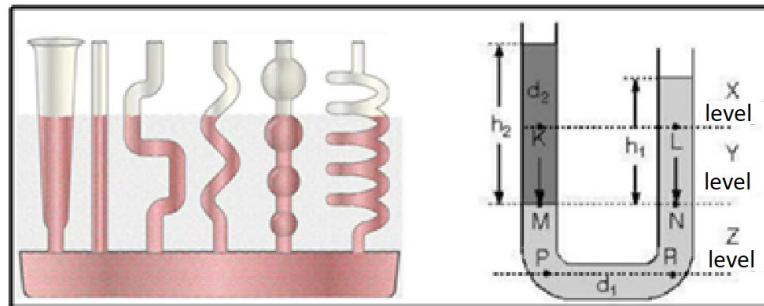


Şekil 1: The illustration of compound vessels law in symbolic terms

For so many practical reasons, especially in order not to lose the focus of attention this discussion will not be extended too far and there and the numerical exercises will be left up to the reader. However it can be beneficial to remind some applications: The water towers and in city plumbing function as compound vessels to distribute water to higher floors of buildings. Hydraulic press mechanism is also a system of compound vessels used in industrial practices (http05; http06).

**Compound Vessels as a Metaphor in Social Context**
'Compound vessels' analogies are also made for some characteristics of society. It is even a stereotypical shortcut used sometimes. Moreover, it is common not only in our country but also in the world.

> **If a recognition can be valid in the context in which it is applied, and is able to provide an explanation of the situation, it is often used and thus eventually becomes a cliché. Compound vessels' analogies are also made for some characteristics of society. It is even a stereotypical shortcut used sometimes. Moreover, it is common not only in our country but also in the world. So is the compound vessels premise** (Belge, 2006).

This analogy is primarily based on a connection "phenomenon". Then it emphasizes the "dependency" result. It is said that the quality level of some institutions in a society also determines the quality of other institutions. For example, it is argued that the level in the economic field will determine the quality level of all other areas. Those who argue that this law of physics is also a law of society claim that public knowledge, culture, perception level, value judgments, policy, bureaucracy, education, formal and non-formal  institutions, civil society organizations, business life, media and even the level of art life, even the quality of football (Erimhan, 2002).

> **Why do universities keep silent? Why is the level of education low and gradually decreasing? Why doesn't the rule of law reign supreme? Why cannot the bureaucracy achieve competency? Why is the media so low? Why do they ignore ethical rules in business? Why don't they develop assignments based on objective criteria? One cannot answer these questions independently. They are all interrelated, interdependent. One cannot expect different quality levels from the various institutions of society. Those who try to make a difference by raising the water level in a container are eliminated in some way. Inverse separation, the process of negative selection, excludes employees from being different, creating a difference** (Akgüç, 2012).

In some cases, there are those who renounce themselves that the law of compound containers is valid in society. Because then it would be inconsistent to criticize one of the social components while praising the other. For example, it may be unusual for advocates of compound vessels to uphold the intellectuals as they sink politicians. Moreover, the behavior of the compound vessels can always be demonstrated in physics; in social sciences however, it is only in the draft phase. In this study, the ranks of secondary education and higher education will be tested with respect to the law of compound vessels not only in terms of purpose, method and content, but also in terms of components of time, physical setting, social setting, method and media. If it is a law, it must be universally validated. This, of course, does not mean that all the other conditions in all countries are equal, from the beginning to the end. But in every country secondary and higher education are articulated structures, purpose, environment, scope, tools and components of social setting are continuous. Countries have their own identity formation, but they share money, goods, energy and information with each other through global communication and interactions. In other words, even if the education assumes national identity it cannot be expected to ignore international connections. Moreover, the statistical methods used to determine whether secondary education and higher education are compound vessels are based on the independence of the subjects (Deng,1999).

**World University Rankings**
In this study, the quality levels of tertiary education will be determined from the global rankings of universities. Universities are the most esteemed source of manpower in almost every country. Therefore, they are the most important institutions of knowledge production, sharing and circulation. Even though the benefits are highly controversial, the world universities are ranked and compared by various organizations.

There is a worldwide demand for higher education and scientific development that is rising and

strengthening. In addition, people seek political security and economic opportunities, travel to improve their knowledge and experience, look for work and so on. There may be different reasons between countries.

But higher education and scientific sharing is one of the main causes of international mobility. The number of international students increased from 66.9 million in 1990 to 152.5 million (128%) in 2007 (UNESCO, 2009). By 2020, it is estimated that 4-7 million students will study in another country (Calderon, 2010).

The global mobility of people affects the social institutions and their behavior, and even their perceptions of corporate identity. This mobility has a mutual interaction with higher education (Rizvi and Lingard, 2010). The demand of qualified students, instructors and researchers in universities also rises until people demand qualified higher education. As a result, it should be welcomed that countries need to make their universities known and universities need to make themselves known. Research on assessment by benchmarking in education roots back 75 years in the US (Hood, 2008; 410-426). University rankings can be considered as a kind of educational research according to the definition of AERA:

> **Education research is the scientific field of study that examines education and learning processes and the human attributes, interactions, *organizations, and institutions that shape educational outcomes*. Scholarship in the field seeks to describe, understand, and explain how learning takes place throughout a person's life and how formal and informal contexts of education affect all forms of learning. Education research embraces the full spectrum of rigorous methods appropriate to the questions being asked and also drives the development of new tools and methods** (AERA, 2011).

Even if the experience of educational assessment can be extended to a very old history in Turkey "assessment and evaluation in education and psychology" of the first congress was conducted in 2008 (Koç, Gülleroğlu and Coşkuner, 2008). Evaluation is essential to ensure the well-functioning of each system design (Boudett, City, Murnane, 2008).

In order to design better schools, evaluation is of importance and priority (Schlechty, 1997). However, as in all areas, the evaluation is multivariate and multipurpose in education (Gaynor, 1998; Anderson, 2001). Evaluation can be made by looking at the level of access to a predetermined criterion, or by looking at the hierarchies of the person or institutions to be evaluated according to the pre-determined criteria.

Organizations like UNDP, OECD, UNESCO etc. assume responsibilities in economy, health, communication, education etc. They conduct cross-country comparisons on many topics. The Human Development Report published annually is one of the most widely referenced examples of such assessments (http://hdr.undp.org/en/). The findings based on the results of exams such as PISA and TIMMS are also published with the ranking scale despite the known disadvantages of competing children of adolescent age (http: //www.pisa ...; http://timss.bc.edu/). Higher education programs and secondary education institutions in our country have been ranked according to their results in the selection examinations for many years (Baykal, 1978). University ranking studies, which are widely known in the world, are limited in Turkey (Erkut, 2010; http07; Baykal, 2018).

THE, www.timeshighereducation.co.uk). THE rankings are categorized by observers to the research activities of universities. There may be inconsistencies in the relationship between this subjective criterion and the number of citations given to the researchers of the university.
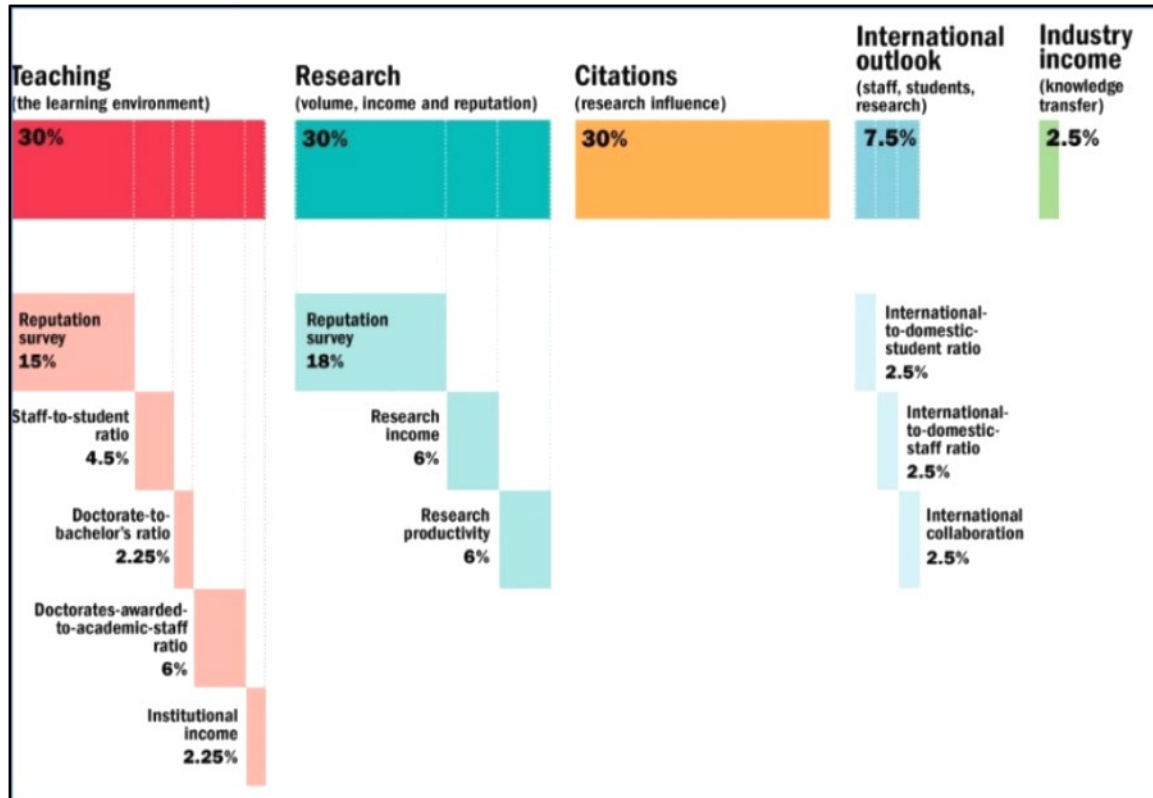
**Figure 1: Criteria for THE World Universities Ranking** (Source: http02)

**QS World University Ranking:** It is an academic achievement ranking of world universities conducted by British Quacquarelli Symonds, which is held every year. It was listed for the first time in 2004 covering 3000 universities and the "Top 400" list of these universities was created. Today this list is expanded and a list of top 700 universities is published in the list.

QS World University Rankings applies four criteria: research, teaching methods, employment prospects and international perspective. The weight assigned to these criteria in the evaluation in terms of percentages are as follows:
- Academic reputation (40%)
- Employability of graduates (10%)
- Faculty / student ratio (20%)
- Citation rate per faculty {20%)
- International Student Ratio (5%)
- International Academic Staff (5%)

These studies are generally ranking and giving priority to the research efficiency in the university.
Only the details distinguish each one from the other.

**Webometrics:** Webometrics obtains ranks based on academic studies published by universities. The ranking includes all universities in the world and covers all kinds of publications of universities. For this reason, the education and training activities of universities reflected in the internet play an important role in the ranking. On the other hand, it's the quantity rather than the quality of the publications determines the ranking. The emphasis is given to the publicity of research and the universities of the countries where the internet is widely used come to the forefront.

-HEEACT ranks the universities according to their publication performance within the last eleven years. This a disadvantage for the young universities and those who made important progress in international publications within the most recent years such as Turkey.

**Leiden study:** They provide a comparative evaluation by considering the limited number of universities according to the average number of publications and average number of citations collected by the publications. This approach, eliminates the inequality due to the unequal opportunity for publication between different fields. Because some universities are much larger than most of the others. Naturally the larger the university is the greater the number of publications due to a large number of staff members.

**Scimago:** They use objective criteria for publications and emphasizes international cooperation in research and publications. In the present evaluation methods, ARWU and URAP have come to the forefront only because they use the research outputs and performance based on objective measurements. In both studies, the data were easily accessible and transparency is prominent. On the other hand, there is a significant difference between URAP and ARWU. The ARWU uses individual achievements such as the Nobel Prize in research and the Fields medal as a ranking criterion. URAP emphasizes the productivity in research outputs which result from persistent institutional support and academic cooperation during the progress.

University ranking studies in the world attract the attention of all stakeholders; evaluations and discussions indirectly contribute to the efforts to increase the quality of universities. On the other hand, there are also active writers and thinkers against these rankings. Even the university rankings that are mentioned and considered are subject to hard criticism in the academic environment and in the media. The primary objection arises from the invalidity of the multi-dimensional qualifications of higher education, reducing the number of activities, inputs and contributions to a sequence. Which dimensions are chosen, how they are measured, and the weights given to the measurements lead to controversy in every ranking practice. In most of the rankings, "instruction" is of secondary importance. R & D and project applications are prominent. It is emphasized that one of the primary objectives of the universities is to create scientific, technological and cultural accumulation and to consolidate this accumulation (Savaş & Baykal, 2011).

### Quality Level of Secondary Education: PISA

In this study, the results of International Student Assessment Program (PISA) was taken as a measure of quality level of secondary education. PISA is one of the most comprehensive educational assessment research in the world, which was initiated by the Organization for Economic Co-operation and Development (OECD) since 2000. PISA measures students' cognitive attainments. It covers three subject areas: Reading skills, science and mathematics achievements. It is applied with three-year cycles. In each application, one-third of the total test duration is given to one of the fields. For example, in 2003 and 2012 mathematics was measured in detail. PISA results are the data source of a large number of academic studies, since it provides a large representative sample and opportunity for objective international comparisons.

Özer (2016) outlines the scope of the work on PISA in Turkey. There are reports by non-governmental organizations and the Ministry of Education evaluating the PISA results. Also lots of research reports are available to examine student surveys. There is also large amount of data from graduate thesis studies.

In this study, the average of the scores obtained from the three subject areas in the PISA 2015 exam was taken for granted as the measure of level in secondary education. Since PISA covers only 15 years old students can be criticized as not being representative sample for secondary education (http01). Also, subject matter areas are limited with only three domains. Therefore, one can claim that it does not fully reflect the quality level of secondary education. However, a larger-scale data source common for all countries is not available.

### METHOD

Spearman rank difference correlation coefficient is an appropriate quantifier to delineate the parallelism between secondary education and higher education levels across the countries. If the rankings of countries in terms of achievement in higher education is identical with the rankings of achievements in secondary education, this indicator will be (rho = +1.00). Because both of the qualifiers ascend or descend along the same direction. The extent to which the correlation between country rankings in higher education and secondary education is significant they can be considered as "compound vessels". As the correlation departs from unity and approaches to zero the validity of the compound vessels metaphor will be

vulnerable.

In this study The ranking of countries in the higher education was formed from the mix of THE-2019 and QS-2019 rankings. There are 1258 universities in the rank of THE2019. In the QS2019 ranking there are 1000 universities. 786 of these universities are in both rankings. There are 472 universities within the QS scope. 214 universities in the QS category were not included in THE rank. When placing in the last ranking, the highest possible rank is assigned to the university. For example, Oxford ranks first in THE and ranks 5th in the QS ranking. In the composite list Oxford is given the first rank. Similarly MIT ranks first in the QS rankings, but 4th in THE list, therefore MIT is also ranked 1st in the combined ranking. Consequently Cambridge and Stanford are both given 2nd rank in the final list because they are at the 2nd rank in THE and QS rankings respectively. The final list composed from THE and QS 2019 University Ranks can be accessed from academia.edu portal (Baykal, 2018).

The unit of analysis (i.e. subjects) of this study are countries, not universities. There are several measures that can be used as indicators of higher education level of countries: The number of universities entering the mixed rank from that country; the average rank number of , rank of the universities in each country. are indicators that come to mind. Through the intuitive evaluations however, it was thought that the number of queues at the top of the universities coming from that country would be the most fair indicator. For example, 23 universities from a large country with a population of 400-900. while six universities from a small country may have taken part in the top 300. Therefore, the rank number of each country's highest-ranking university is considered as the higher education level of that country. Although this measure is not perfect and complete, it is the least objectionable criterion.

## FINDINGS

When interpreting the findings, it is envisaged that there will be indicators of human development (http03). Because, human development indicators are either means or the ends in both secondary and tertiary education. The list of these variables is shown in the table in Annex 1. These variables are compiled in 5 separate clusters: Educational (EDU), economic (ECO), general (GNL), health (HLT) and social (SOC). It is not conducive to collect numerical values of the values of these displays. Therefore, all of these indicators were transformed into standardized scores - the method described below.

In the first step, the mean and standard deviation of the raw data from the Human Development Reports of the variables in the table in Annex 1 were calculated. They are already shown in the chart in Annex 1. In the second step, the raw scores were converted to standardized scores (T scores).

The mathematical relationship used for this process is as follows where;

$$T_{ij} = \frac{X_{ij} - \overline{X}_j}{S_j} \times S_\tau + \overline{T}_\tau$$

i: Rank indicator of the country in the data matrix
j: The indicator of the ranking criterion
$T_{ij}$: The standard score of the country "i" for the criterion "j"
$X_{ij}$: The raw score of the country "i" for the criterion "j"
$X_j$: The arithmetic average of the raw score for the criterion "j"
$S_j$: The standard deviation of the raw scores for the criterion "j"
$S_s$=10 Selected standard deviation which is common for all measurements
$X_s$=50 Selected standard deviation which is common for all measurements
Thus, countries are given scores with an average of 50 and a standard deviation of 10 according to each criterion.
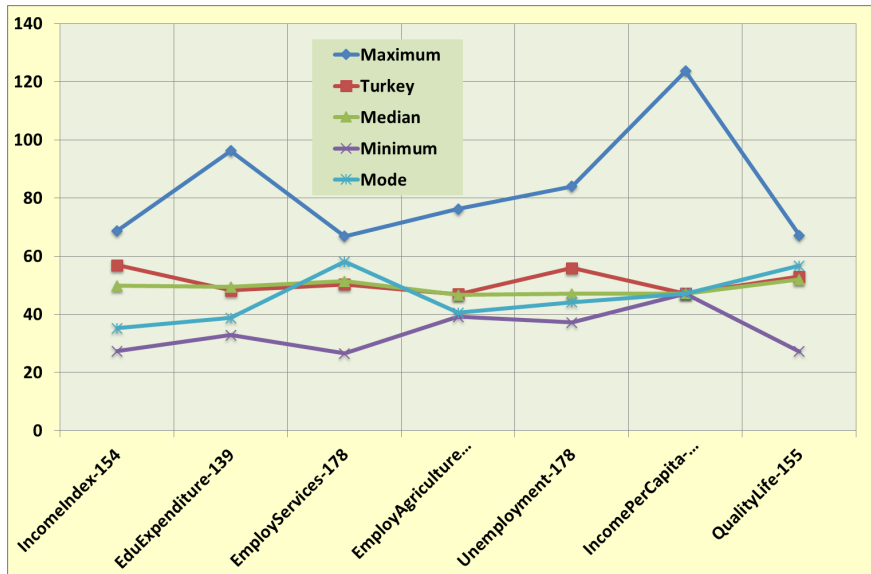
Figure 2: Economy (ECO) in the indicators related to Turkey's position in 2018

As the averages of the criteria indicators in the horizontal axis were all determined to be 50, the averages were not shown separately. The number next to each indicator indicates the number of countries that the indicator is calculated for. As can be seen from this description, each of the Highest, Lowest, and Median values may belong to a different country. Mode is a descriptive statistics covering different countries for each indicator.

Figure 3 displays Turkey's profile for health (HLT) and related indicators in 2018.
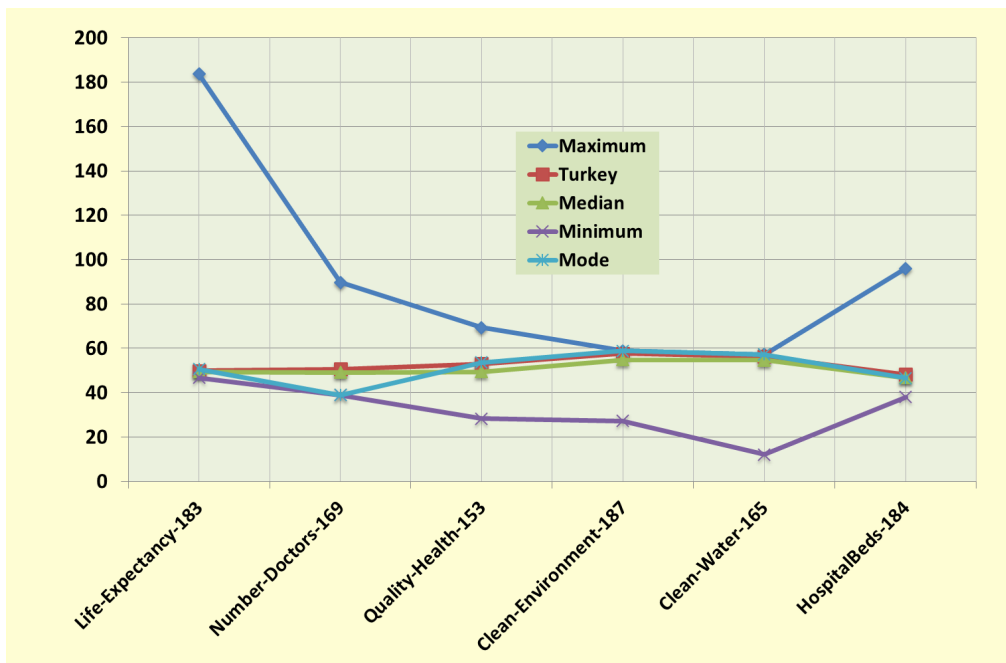


Figure 3: Health (HLT) Turkey's position in the relevant indicators in 2018

Figure 4 shows Turkey's international profile is shown for various social (SOC) indicators in 2018.
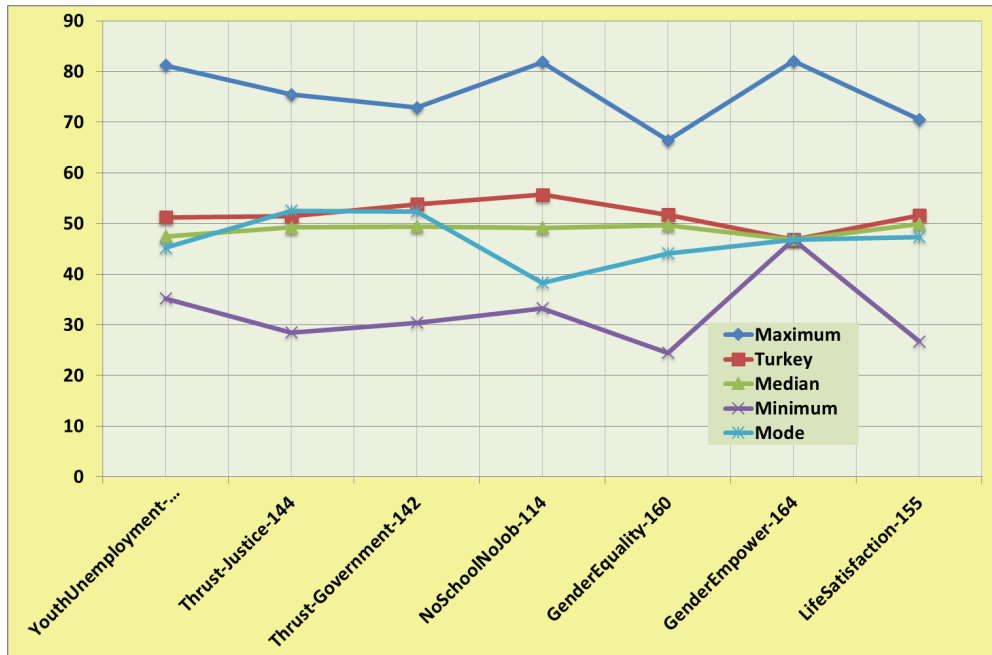
Figure 4: Turkey's position along the 2018 Miscellaneous Community (SOC) indices

It is worth recalling that each of the maximum, minimum and Highest, Lowest and Median values may belong to another country in each table.

Figure 5. General (GNL) listed in index position is shown in cross-border context, Turkey:
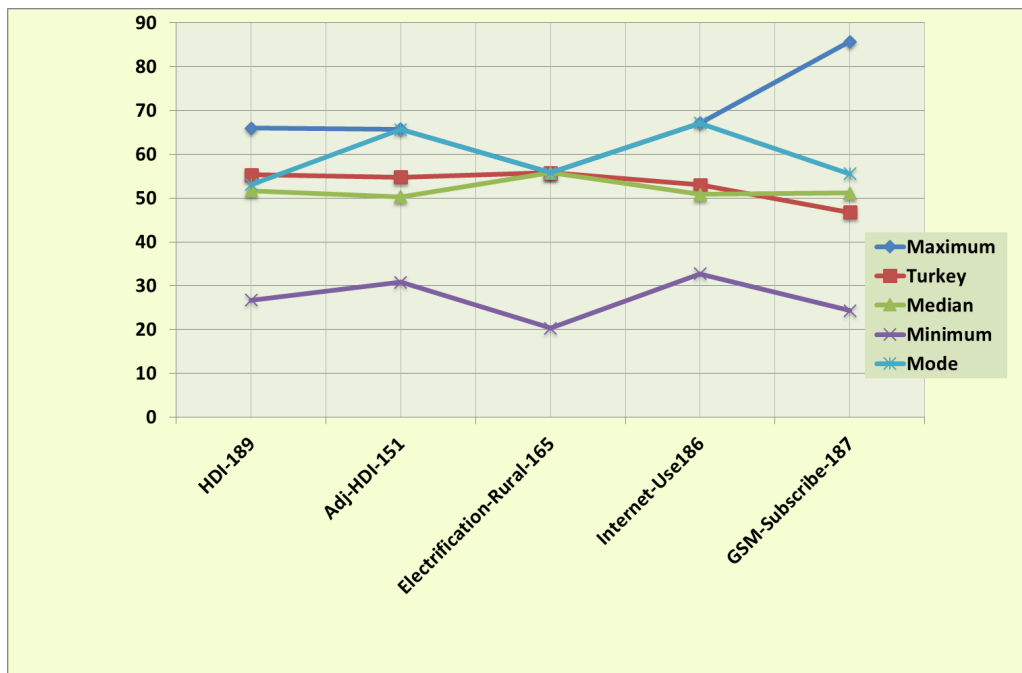


Figure 5: Turkey's position in the General (GNL) indicators in 2018.

Turkey's profile in terms of educational indicators appears in Figure 6 below.
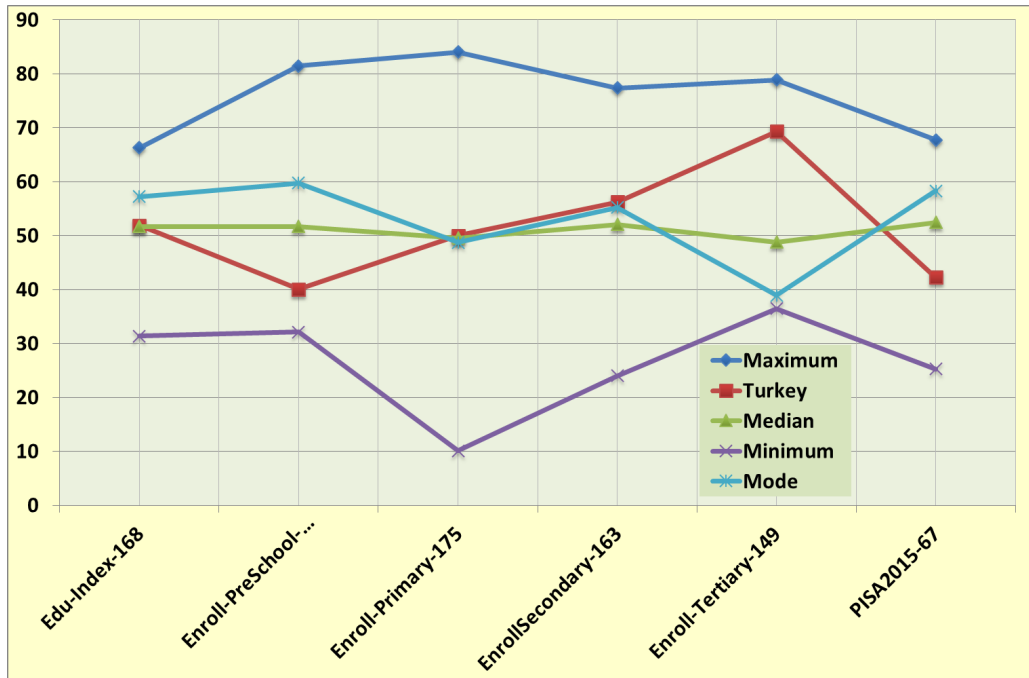
Figure 6: Turkey's position for the educational (EDU) indicators in 2018.

Friedman two way analysis of variance analysis was performed to determine whether 5 basic developmental criteria (ECO, HLT, SOC, GNL and EDU), depicted in the figures above as their components, showed a significant pattern within the countries. In other words the visual representation in Figure 7 can be observed in many countries.
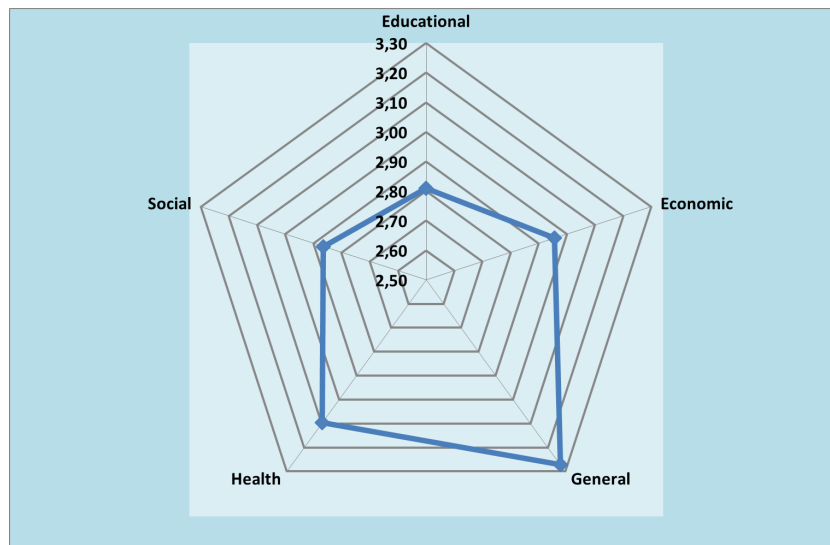


Figure 7: The rank-order of human developmental indices in Turkey

**CONCLUSION AND DISCUSSION**

Although Turkey is among the top 20 in terms of factors of economics (ECO) the findings regarding the extent of Turkey's GNP per capita income shows that even remained below the median. The highest per capita income indicator is not very common and representative for all countries. Maximum values represent usually a very special situation observed in small countries (city-states) with very little population. Turkey is at the median level of quality of education and education spending, but unfortunately in terms of unemployment is far above the median. It can also be seen that there are some countries of whom total incomes are less than the educational expenditures of some others. Turkey is far

below the maximum value of educational investment although she is a bit above the median.

All of the indicators relevant to health (HLT) in Turkey is above the median line. Unfortunately, the whole world is troubled by the clean environment and access to clean water. Even the maximum value achieved almost coincide with the median.

Social (TOP) indicators portray an interesting line in Turkey. Negative attributes like "youth unemployment" and "youth population without job and without schooling" are high above the median, but luckily in some positive indicators like "confidence in government" and "life satisfaction" Turkey seems to have managed to stay above the median. This situation can be explained by the large size of the young population. Perhaps young people can perpetuate their hopes against unemployment and poverty. It is understood that the majority of the countries on the issue of gender equality meet around the median and the median value is closer to the lowest value, not the highest value.

Within the span of General (GNL) human development indicators like "inequality adjusted human development" Turkey could have risen above the median line. Almost all countries have been equalized in "rural electricity". "Internet use" is also one of the indicators of which Turkey exceeded the median. What is interesting is that for the "cell phone ownership" Turkey is under the median. This can be explained by the fact that women in the rural areas of Turkey could not have had access to this gadget yet, although almost everyone has one. Another complementary reason is that Turkey has had completed main line investments for fixed home phones. So many under developed countries however skipped cable technology and jumped into GSM technology.

In terms of educational (EDU) indicators (i.e. school enrollments) Turkey refutes the compounds vessels law. In preschool education Turkey is far below the median among 162 countries in such a way that she is almost closer to the lowest level. In primary schooling she is around the median and among the most frequent point. In secondary education Turkey's position is very close to the most frequent level. In higher education however she has gone up above the median and the mode; and has almost reached the highest value. In terms of PISA achievement Turkey ranks 50th among 67 countries. Shortly Turkey performs at different competency levels in various school stages.

Almost every country and especially Turkey displays wavy line for educational indicators. For example, although US is very superior at tertiary education has some fall backs in secondary education. Turkey is far below the median in preschool schooling and in PISA, but she is far above the median in Tertiary education at least in terms of quantity. A correlational analysis may help to understand how these indicators go together. Table 2 shows the statistical relationships between 5 selected indicators and higher educational indicators plus PISA2015.

Table 2: Correlation coefficients between human development, higher education and PISA indicators

| Indicators | PISA2015 Mean | Educational | Economics | General | Health | Social | Number of Universities |
|---|---|---|---|---|---|---|---|
| Educational | 0,782** | | | | | | |
| Economics | 0,405** | 0,447** | | | | | |
| General | 0,677** | 0,746** | 0,568** | | | | |
| Health | 0,713** | 0,765** | 0,471** | 0,810** | | | |
| Social | 0,537** | 0,256* | 0,501** | 0,315** | 0,273** | | |
| Number of Universities | 0,239 | 0,15 | 0,074 | 0,165 | 0,208* | 0,103 | |
| Highest University Rank | 0,503** | 0,529** | 0,483** | 0,520** | 0,506** | 0,403** | 0,467** |

N=67 with PISA otherwise N=94        * p<0,050    ** p<0.001

Table 2 shows that as the number of universities from the countries in the ranking list increases the ranking of the universities tends to increase. But the correlations of between the other indicators and the number of universities from the countries are not significant at all. This means that it is not the number of universities but the ranking of universities matters. So far as the other indicators are concerned they are significantly inter-correlated. This is not a surprising result because these variables are either the ends or the means of the educational systems. Hence there is a spiraling intercorrelations between them

Table 2 delineates that mean achievement in PISA 2015 correlates significantly with the other developmental indicators of the participant countries. If PISA scores can be considered as an indicator of the secondary education levels of the countries, and if the world university rankings measure the efficacy of tertiary education then the significant correlations between them suggest dependency between them. However, development indicators other than educational indicators also show similar and significant relationships with others. In other words, health, economy, communication and social variables also contribute to the success of both PISA and higher education. More precise relationship between PISA and University rankings can be obtained by controlling the other indicators. Partial correlations in Table 3 imply that secondary education and tertiary education are not communicating vessels. There are other independent factors which determine their levels.

Table 3. Partial correlations between educational indicators

|  | PISA2015 Mean | Educational | Number of Universities |
|---|---|---|---|
| Educational | 0,553** |  |  |
| Number of Universities | 0,211 | -0,040 |  |
| Highest University Rank | 0,203 | 0,057 | 0,474** |

N=56        ** p=0,001

Control Variables: Economics & General & Health & Social

The evidence in Table 3 shows that the secondary education and higher education are not significantly correlated. As a result, although secondary education and higher education are interconnected, they may not be interdependent on each other. On the positive side, improvement studies at these two levels can be done independently of the other. However, low relations do not mean that these two levels are disconnected from each other. Mandatory links in educational variables can already pave the way for interaction between these two levels (Murray, 2011).

Annex 1. Descriptive statistics of indicators of countries

| HDI Labels | Human Development Indicators | N | Average | St. Dev. |
|---|---|---|---|---|
| EDU-Edu-Index | Education Index | 168 | 0,6 | 0,2 |
| EDU-Enroll-Primary | Enrollment rate in Primary School | 175 | 102,5 | 12,2 |
| EDU-GenderEmpower | Gender Empowerment | 164 | 93,6 | 292,9 |
| EDU-Enroll-PreSchool | Enrollment in Pre-School Education | 162 | 64,3 | 35,5 |
| EDU-Enroll-Secondary | Enrollment in Secondary School | 163 | 84,9 | 28,9 |
| EDU-PISA2015 | PISA 2015 Mean Score | 67 | 462,9 | 50,0 |
| EDU-Enroll-Tertiary | Enrollment in Tertiary Education | 149 | 40,3 | 28,3 |
| ECO-IncomeIndex | Natiional Income Index | 154 | 0,5 | 0,2 |
| ECO-EduExpenditure | Educational Expendture by | 139 | 4,7 | 1,7 |
| ECO-EmployServices | Employment in the Services Sector | 178 | 53,2 | 20,1 |
| ECO-EmployAgriculture | Employment in the Agricultural | 178 | 26,9 | 24,7 |
| ECO-Unemployment | Total Unemployment Rate | 178 | 7,8 | 5,9 |
| ECO-IncomePerCapita | Income per Capita | 189 | 4380,9 | 15262,1 |
| ECO-LifeSatisfaction | Perceived Life Satisfaction | 155 | 62,3 | 19,1 |
| GNL-Adj-HDI | Inequality Adjusted Human | 151 | 0,6 | 0,2 |
| GNL-Electrification-Rural | Electrification in the Rural Area | 165 | 84,1 | 27,6 |
| GNL-HDI | Human Development Index | 189 | 0,7 | 0,2 |
| GNL-Internet-Use | Total Internet Usage | 186 | 49,9 | 28,2 |
| GNL-GSM-Subscribe | Mobile Phone Subscribers | 187 | 106,6 | 37,6 |
| HLT-Life-Expectancy | Average Life Expectancy | 183 | 0,8 | 1,5 |
| HLT-Number-Doctors | No of Doctors per 10 Thousand | 169 | 16,6 | 14,7 |

| HLT-Quality-Health | Perceived Quality of Health Services | 153 | 56,2 | 19,0 |
| HLT-Clean-Environment | Clean Environmental Conditions | 187 | 73,9 | 29,3 |
| HLT-Clean-Water | Access to Clean Water | 165 | 89,9 | 14,1 |
| HLT-HospitalBeds | Hospital Beds per Tousand Citizens | 184 | 29,2 | 23,4 |
| SOC-YouthUnemployed | Youth Unemployment | 115 | 18,8 | 12,4 |
| SOC-Thrust-Justice | Confidence in Jurisdiction | 144 | 50,4 | 18,3 |
| SOC-Thrust-Government | Thrust in Government | 142 | 51,2 | 20,5 |
| SOC-NoSchoolNoJob | Youth neither in School nor at Work | 114 | 17,9 | 10,7 |
| SOC-GenderEquality | Gender Equality | 160 | 0,7 | 0,2 |

## RESOURCES

Akgüç, Ö. (2012). Birleşik kaplar yasası. Cumhuriyet, 11 Mart 2012, s.4.

Baykal, A. (1978). Yükseköğretim programlarının sıradüzeni. Boğaziçi University Dergisi, Eğitim, 6(1978), 11-18.

Baykal, A. (2018). Variables Inseparable in Higher Education: Teaching Research. Proceedings of INTED2018 Conference 5th-7th March 2018, Valencia, Spain (Source: http08).

Belge, M. (2006). 'Bileşik kaplar' teorisi. Radikal, 11 Haziran 2006, s. 7.

Boudett, K.P., City, E.A., Murnane, R.J. (Eds.). (2008). Data Wise. Harvard Education Press.

Calderon, A. (2010). Emerging countries for student recruitment in tertiary education. Paper presented to the IMHE-OECD Conference, Higher Education in a World Changed Utterly: Doing More with Less, Paris September 2010.

Deng H. et al.  (1999), Inter-company comparison using modified TOPSIS with objective weights, Computers and Operations Research,  27(10), 963-973

Emirhan, A. (11.06.2002). "Birleşik kaplar yasası futbol için de geçerlidir". Yeni Mesaj. http://www.yenimesaj.com.tr/birlesik-kaplar-yasasi-futbol-icin-de-gecerlidir-H1070076.htm

Erkut, E. (2010).  İlk 500 ve Türk Üniversiteleri, http://www.cumhuriyet.com.tr/?yer=yazar&aranan=Prof.%20Dr.%20Erhan%20Erkut

Gaynor, A. K. (1998). Analyzing problems in schools and school systems. New Jersey: Lawrence Earlbaum.

Hood, S. (2008). Evaluation Roots Reconsidered: As a Hilliard, a Fallen Hero in the "Nobody Knows My Name" Project, and African Educational Excellence. Review of educational research.  September 2008, vol. 78 no. 3 410-426.

Koç, N., Gülleroğlu, H.D., Coşkuner, D.T. (Yayına hazırlayanlar). I. Ulusal Eğitimde ve Psikolojide Ölçme ve Değerlendirme Kongresi. 14-16. Mayıs 2008. Ankara Üniversitesi Eğitim Bilimleri Fakültesi. Ankara.

http01: http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html

http02: https://www.timeshighereducation.com/

http03: http://hdr.undp.org/en/data

http04: http://www.uyk2011.org/kitap/pages/uyk2011_s_2458_2464.pdf

http05: http://www.nkfu.com/bilesik-kaplar-yasasi/

http06: https://fizikdersi.gen.tr/pascal-prensibi-su-cendereleri-u-borusu/

http07: https://www.hotcourses-turkey.com/study-abroad-info/applying-to-university/world-university-rankings/

http08:https://www.academia.edu/36075111/VARIABLES_INSEPARABLE_IN_HIGHER_EDUCATION_TEACHING_AND_RESEARCH

Murray,D.; Hall, R., Leask, B., Marginson, S., Ziguras, C. (2011). State of current research in international education. Prepared for AEI supported International Education Research-Policy Symposium. Technical Report, January 2011.

Özer Özkan, Y. (2016). Examining the Effective Variables on Classification of School Success Through PISA 2012 Turkey Data. *International Online Journal of Educational Sciences*, 9(2), 117-130.

Rizvi, F. & Lingard, B. (2010). Globalizing Education Policy, London and New York, Routledge.

Savaş, E. ve Baykal, A. (2011). Üniversitelerin Sıradüzeni ve Sıralama Ölçütlerinin Ağırlıkları. Uluslararası Yükseköğretim Kongresi: Yeni Yönelişler ve Sorunlar (UYK-2011) 27-29 Mayıs 2011, İstanbul; 3. Cilt / Bölüm XVI / Sayfa 2458-2464. (Source: http04)

Schlechty, P.C. (1997). Inventing Better Schools. San Fransisco: JosseyBass Publishers.

# EFFECTS OF TRANSFORMATIONAL SCHOOL LEADERSHIP PRACTICES ON SELF-EFFICACY AND COLLECTIVE EFFICACY OF TEACHERS PROFESSIONALLY QUALIFIED IN HIGHER EDUCATION

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**ABSTRACT**
The main purpose of this study is to find out the effect of core practices of transformational school leadership on self-efficacy and collective efficacy of teachers, who are qualified professionally in higher education. Survey research and causal comparative research used as method of study. A questionnaire has been developed to collect data for four transformational school leadership core practices: setting direction, developing people, redesigning the organization and improving the instructional programme. Teachers self-efficacy and collective teacher efficacy also have been collected from teachers with higher education in professional and academic qualification. The multiple regression analysis depicted that teachers' self efficacy and their collective efficacy significantly and highly affected by principals' transformational leadership practices at public and private institutes. The outcomes of the study will be supportive for teachers' self efficacy and collective efficacy, encouraging teamwork, supporting system of the schools aligned with transformational leadership of principals.
**Keywords:** Transformational school leadership, self efficacy, collective teacher efficacy, developing people, setting directions, redesigning the organization and improving the instructional programme.

## INTRODUCTION

Teachers are the one who educate people and for generations they have been playing a vital role in educating students in schools. They have contributed significantly in the learning outcomes of the students (Dellinger, Olivier, Bobbett, & Ellett, 2008).

A lot of struggle has been done to motivate teachers to enhance themselves professionally in their careers, so that they may produce educated and better young lot of students. Throughout all formal educational stages, teachers have been the people in front line, who educate and bring great impact to every new generation in the country. Current education system of Pakistan is constantly reviewing and bringing changes in education policies. So school teachers are all-important people helping out in execution of educational policies and plans (Park, Henkin, & Egley, 2005; Chan, 2008). Therefore, teachers' self efficacy and their collective efficacy is relevant here as they gratly affect learning outcomes of the students (Robinson, Lloyd, & Rowe. 2008; Capara, Barbaranelli, Steca, & Malone, 2006; Dellinger, Olivier, Bobbett, & Ellett, 2008). It has also been observed that teachers having higher level of self efficacy are able to do their job of teaching more effectively (Ware & Kitsantas, 2007; Ross, J. A., Gray, 2006).

A principal or head master is the leader and manager of a school. A School leader provides leadership to the staff and the students. It is included in his duty to plan and manage available resources and to look after the day to day administration of the school. Transformational school leadership is a course through which a leader's qualities like his charisma or personality strength, influence the followers, motivation of the subordinates, helping the employees to excel themselves; and to strive for the higher goals (Bass, 1990). According to findings of a large number of studies  school leadership plays a key role in the effectiveness of school organizations (Brauckmann & Pashiardis, 2009).

Self-efficacy is having a positive belief or self dependency that one has ability to do some  specific kind of tasks (Bandura, 1997). While, according to Skaalvik (2010) self efficacy is belief of an individual teacher in his own ability that he is able to perform certain pedagogical practices which are necessary to achieve already set educational goals. In the previous research studies, teachers who have been found with significantly strong beliefs, have the following characteristics:

- They are more content with their jobs (Trentham, Silvem & Brogdon, 1985)
- Higher level of commitment is demonstrated by them (Trentham, Silvem & Brogdon, 1985)
- They tend to be least absent (Mcdonald & Siegall, 1992)

Bandura (1997) refers to collective teacher efficacy as shared belief of a group of teachers that they have certain capability to organize and execute the required plan or action which produces desired results according to specified goals. There have been, also, found positive and significant effect of collective teacher efficacy on achievements of the students (Bandura 1993).

## TRANSFORMATIONAL SCHOOL LEADERSHIP MODEL

Kenneth Leithwood and his associates presented transformational school leadership model. (Leithwood et al. 1994; Leithwood & Jantzi, 2002; Leithwood & Sun, 2012). This model represents core practices of a transformational leader that affect teaching and learning in a school, where these are applied. Instructional leaders who have transformational leadership qualities are able to produce a positive significant effect on instruction.

Leithwood (1999, 2002) worked on developing and testing four core practices of transformational leadership, namely setting direction, redesigning the organization, developing people and improving instructional program. These four core practices have been discussed in detail as follows:

1. **Setting directions**
   First of four core practices of transformational leadership practices, is setting direction which refers to development of a shared or collective vision, making goals of the group accepted and effectively communicating high level of expectations.

2. **Redesigning the organization**
   This second of four main core practices is mainly concerned about strengthening culture of a school, it's building structure which makes engagement and collaboration of the parents and the community.

3. **Developing people**
   This core practice of is about developing people by stimulating them intellectually, modelling expected valued behaviours, beliefs and values. Leaders also encourage teachers to evaluate their own practices and improve them as required.

3. **Improving the instructional program**
   This fourth practice pertains to appropriately staffing a program, monitoring activities, offering support to the staff and teachers of the school and minimizing distractions which may affect work of teachers. It is also about protecting teachers whenever necessary.

In this research study two research questions were posed, which are given below:
1. What effect transformational leadership four core practices made on self-efficacy of teachers who have professional higher education qualification?
2. What effect transformational leadership four core practices made on collective of teachers who have professional higher education qualification?

## METHOD

### Sample and procedure

Ten government secondary schools (for boys and girls) of Lahore were selected as sample and ten private secondary schools(for boys and girls) A total sample of 320 secondary school male and female teachers was selected. Two stage sampling technique has been employed, at first stage ten public and ten private schools were selected in clusters. In second stage samples were selected randomly by obtaining school teachers list and drawing their names randomly from the lists.

### Instrument

Transformational leadership has been outlined as a multidimensional construct which is based on primary four core practices measured in the questionnaire that was originally designed by Leithwood and his fellows (Leithwood and Jantzi, 2006; 1999). These four core practices have been recognized as:
1. Setting directions (for example: "The head of the school expects highly from us as being professional teachers"

2. Redesigning the organization (for example: "The head of the school encourages us for collaborative work among teachers")
3. Developing the people (for example: "The head of the school encourages me to evaluate my own practices and improve these as needed")
4. Improving the instructional program (for example: "The head of the school tend to protect the teachers whenever necessary")

In order to measure self efficacy and collective efficacy of teachers who are professionally qualified in higher education, the instruments constructed by Skaalvik and Skaalvik (2007 & 2010) have been used. A questionnaire was designed which included questions regarding academic and professional qualification; and five point Likert scale for 40 items was used in order to know opinion of the respondents. This five point Likert scale followed the scheme as:

- 1 for "strongly disagree"
- 2 for "disagree"
- 3 for "neutral"
- 4 for "agree"
- 5 for "strongly agree"

## DATA ANALYSIS

The data gathered through closed ended items and five point Likert scale was analyzed through version 21 of Statistical Packages for Social Sciences (SPSS). Multiple regression analysis has been applied in order to test the formulated hypothesis about relationship of transformational school leadership core four practices (Leithwood et al. 1999, 2006 & 2012) and self efficacy; and collective efficacy of the teachers who are professionally qualified in higher education.

Table 1. Results of  multiple regression analysis: Self-efficacy as dependent variable

| Predictors | $\beta$ | $t$ | $p$ |
|---|---|---|---|
| Setting direction | 0.267* | 3.302 | 0.001 |
| Redesigning the organization | 0.185* | 3.014 | 0.003 |
| Developing people | 0.215* | 2.927 | 0.004 |
| Improving the instructional program | 0.075* | 1.347 | 0.179 |

R=0.664, $R^2$=0.441, $R^2$(Adjusted)=0.435

*$p<0.05$

In the above table results of multiple regression analysis have been mentioned. According to these results four core practices of transformational school leadership are significantly predicting self efficacy of teachers who are professionally qualified in higher education.. Here, value of adjusted $R^2$=0.435 shows that these four transformational leadership core practices predicts only 43.5% of teachers' self-efficacy.

According to the above table 1, four core practices of transformational leadership ie setting directions ($\beta$=0.267, $p<0.05$), redesigning the organization ($\beta$=0.185, $p<0.05$), developing people ($\beta$=0.215, $p<0.05$) and improving the instructional program ($\beta$=0.075, $p<0.05$) all contribute significantly to self-efficacy of the teachers professionally qualified in higher education and serving in secondary schools.

Table 2. Results of  multiple regression analysis: Collective teacher efficacy as dependent variable

| Predictors | $\beta$ | $t$ | $p$ |
|---|---|---|---|
| Setting direction | .282* | 3.687 | 0 |
| Redesigning the organization | .159* | 2.74 | 0.006 |
| Developing people | .135* | 1.95 | 0.052 |
| Improving the instructional program | .228* | 4.302 | 0 |

R=0.707, $R^2$=0.500, $R^2$(Adjusted)=0.494

*p<0.05*

In the above given table results of multiple regression analysis have been mentioned. These results show that four core practices of transformational school leadership are significantly predicting self efficacy of teachers who are professionally qualified in higher education and serving in secondary schools. Here, value of adjusted $R^2=0.494$ shows that these four transformational leadership core practices predicts only 49.4% of  collective teacher efficacy.

According to the above table 2, four core practices of transformational leadership ie setting directions ($\beta$=0.282, *p*<0.05),  redesigning the organization ($\beta$=159,  *p<0.05),* developing people ($\beta$=0.135,  *p*<0.05) and improving the instructional program ($\beta$=0.228,  *p*<0.05) all contribute significantly to  collective efficacy of the teachers professionally qualified in higher education and serving in secondary schools.

## CONCLUSION AND IMPLICATIONS
This research study presents an insight into the four core practices of transformational school leadership and its relationship with self-efficacy; and collective efficacy of the teachers professionally qualified in higher education and also serving in secondary schools of Lahore, Pakistan.

Previous research studies also suggest that core practices of transformational school leadership have positive and significant effect on self efficacy of the teachers (Ross & Gray, 2006; Horn-turpin, 2009; Leithwood et al. 1994) and the same goes to the positive and significant effect of these core practices of transformational leadership on the collective teacher efficacy (Ross and Gray 2006; Demir 2008; Walumbwa et al. 2004).  The findings of this research paper also serve as support to the potential implications for educational leadership and the management to have a look at their own current leadership practices and review it for improvement and refinement. This paper also seeks to contribute its share in progressing the educational leadership of schools regarding apprehension of the basic transformational leadership core practices and its impact on self-efficacy of the teachers and their collective efficacy as well. This will further help in facilitating and improving quality of teaching as well as learning in the classroom. The head of the schools would be able to know which factor to be focused more in order to boost self efficacy and collective efficacy of teachers as well.

## References
Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37 (2), 122-147.
Bandura, A. (1997). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review,84* (2), 191-215.
Bandura A (2000).Exercise of human agency through collective efficacy. Current Directions in Psychological Science 9(3): 75–78.
Bass, B. (1990). From transactional to transformational leadership: Learning to share        the                vision. Organizational Dynamics, 18, 19-31.
Bass, B. M., & Bass, R. (2009). *The Bass handbook of leadership: Theory, research, and managerial applications*. Simon and Schuster.
Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Psychology Press.
Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: a meta-analysis. *Journal of applied psychology*, *89*(5), 901.
Brauckmann, S., & Pashiardis, P. (2009). From PISA to LISA: new educational governance and school leadership: exploring the foundations of a new relationship in an international context. 90th Annual Meeting of the        American Educational Research Association. San Diego, CA.
Burns, J. (1978). Leadership. New York: Harper & Row.
Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, *44*(6), 473–490. http://dx.doi.org/10.1016/j.jsp.2006.09.001
Conger, J. A. (1999). Charismatic and transformational leadership in organizations: An insider's perspective on these developing streams of research. *The leadership quarterly*, *10*(2), 145-179.
Dellinger, A. B.,Olivier, D. F., Bobbett, J. J., & Ellett, C. D. (2008). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. *Teaching and Teacher Education*, *24*, 751-766. http://dx.doi.org/10.1016/j.tate.2007.02.010
Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological bulletin*, *129*(4), 569.
Forester, J., & Clegg, S. R. (1991). Burns, JM (1978). Leadership. New York: Harper and Row. *Leadership Quarterly*, *2*(1).

Gist, M. E. (1987). Self-efficacy: Implications for organizational behavior and human resource management. Academy of Management Review, 12 (3), 472-485.

Goddard, RD., LoGerfo, L., & Hoy, W.K. (2004). High school accountability: The role of perceived collective efficacy. *Educational Policy, 18,* 403-424.

Hauserman, C., Ivankova, N., & Stick, S. (2013). Teacher perceptions of principal leadership qualities: A mixed methods study .*Journal o f School Leadership, 23,* 34-62.

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, *89*(5), 755.

Horn-turpin, F. D. (2009). *A study examining the effects of transformational leadershipmbehaviours on the factors of teaching efficacy, job satisfaction and organizational commitment as perceived by special education teachers*. Thesis by Virgina Polytechnic Institute and State University.

Krishnan, V. R. (2005). Transformational leadership and outcomes: role of relationship duration. *Leadership & Organization Development Journal, 26* (6), 442-457.

Leithwood, K., Jantzi, D., & Fernandez, A. (1994). Transformational Leadership        and        Teachers' Commitment to Chnages . Στο J. Murphy, & K. S. Louis, Reshaping the Principalship. Insights from Transformational Reform    efforts. Thousands Oaks, California: Corwin Press.

Leithwood K and Jantzi D (1999) Transformational school leadership effects: A replication. School Effectiveness and School Improvement 10(4): 451–479.

Leithwood K and Jantzi D (2002) Transformational school leadership for large-scale reform: Effects on students, teachers, and their classroom practices. School Effectiveness and School Improvement 17(2):201–227.

Leithwood K and Sun J (2012) The nature and effects of transformational school leadership: A meta-analytic review of unpublished research. Educational Administration Quarterly 48(3): 387–423.

Leithwood K, Harris A and Hopkins D (2008) Seven strong claims about successful school leadership. School Leadership and Management 28(1): 27–42.

Leithwood K, Jantzi D and Steinbach R (1999) Changing Leadership for Changing Times. Buckingham, UK: Open University Press.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *The leadership quarterly*, *7*(3), 385-425.

McDonald, T., & Siegall, M. (1992). The effects of technological self-efficacy and job focus on job performance, attitudes, and withdrawal behaviors. *The Journal of Psychology*, *126*(5), 465-475.

Nandal, V. & Krishnan, V. R. (2000). Charismatic leadership and self-efficacy: Importance of role clarity. *Management and Labour Studies, 25* (4), 231-243.

Park, S., Henkin, A. B., & Egley, R. (2005). Teacher team commitment, teamwork and trust: exploring associations. *Journal     of     Educational     Administration*, *43*(5), 462–479. http://dx.doi.org/10.1108/09578230510615233

Robinson, V. M. J., Lloyd, C. a., & Rowe, K. J. (2008). The Impact of Leadership on Student Outcomes: An Analysis of the Differential Effects of Leadership Types. *Educational Administration Quarterly*, *44*(5), 635–674. http://dx.doi.org/10.1177/0013161X08321509

Ross, J. A., & Gray, P. (2004). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. In *Transformational Leadership and Collective Teacher Efficacy* (Vol. 17, pp. 179–199). http://dx.doi.org/10.1080/09243450600565795

Scheier, M.F., & Carver, C.S. (1988). A model of behavioral self-regulation: Translating intention into action. In L. Berkowitz (ED.) Advances in experimental social psychology, 21, 322-343. San Diego, CA: Academic Press.

Schwarzer, R., & Fuchs, R. (1995). Self-efficacy and health. In A. Bandura (ED.), Self-efficacy in changing societies, 259-288. New York Cambridge University Press.

Tafvelin, S. (2013). *The transformational leadership process: Antecedents, mechanisms, and outcomes in the social services* (Doctoral dissertation, Umeå universitet).

Thorlakson, A. J. H., & Murray, R. P. (1996). An empirical study of empowerment in the workplace. Group and Organization Management, 21 (1), 67-83.

Trentham, L., Silvern, S., & Brogdon, R., (1985). Teacher efficacy and teacher   competency               ratings. Psychology in the Schools, 22 (3), 343-352.

Ware, H., & Kitsantas, A. (2007). Teacher and Collective Efficacy Beliefs as Predictors of. *The Journal of Educational Research*, *100*, 303–311. http://dx.doi.org/10.3200/JOER.100.5.303-310

# QUALITY MANAGEMENT APPROACHES AND THEIR COMPARISON IN HIGHER EDUCATION: MARMARA UNIVERSITY FACULTY OF BUSINESS ADMINISTRATION QUALITY STUDIES

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**ABSTRACT**

Quality in education has become a remarkable issue with globalization by the spread of education and training activities beyond borders, increasing competitive environment, and rapidly developing technology through commercialization in education. All these developments increase expectations from education and oblige education to have standards and quality. At this point, it has become a necessity for higher education institutions to provide quality in education to survive. For this purpose, both public and foundation/private universities started to carry out various quality studies. There are two main objectives of this study: The first aim is to identify the current quality management approaches used in higher education and compare them with each other, and the second aim is to explain the quality studies carried out in Marmara University Faculty of Business Administration with a critical approach.

**Keywords:** Education, Quality Management, Higher Education

## EDUCATIONAL QUALITY IN HIGHER EDUCATION AND THE IMPORTANCE OF QUALITY

Many factors such as the expansion of education across the border, increased competition among higher education institutions, and change in the expectations of stakeholders from educational institutions have increased the quality studies in higher education institutions. One of the most valuable assets of higher education institutions is public trust, and it is important to ensure academic and administrative quality in building this trust and keeping alive. For higher education institutions, quality refers to harmony, excellence, transformation and difference (Harvey, 2007). Quality in higher education institutions "administrative quality" (related to infrastructure and administrative processes) and "quality of education" (related to education, research and development activities) can be categorized as two different aspects (Lola, 2013). Although there are many different opinions, researchers who think that quality in higher education are equivalent to student success is often seen (Balcı, 1998; Tezsürücü ve Bursalıoğlu, 2013; Şahin vd., 2010; Damar vd., 2017). In addition, the success of teaching, research (Gökçe, 2010; Nurluöz vd., 2010)  and faculty members (Korkmaz, 2007; Tortop, 2013; Güven, 2006) is considered as the factors affecting quality in higher education institutions. It is possible to think of quality as a system with specific criteria or principles. But at this point; with the assumption that standards are objective and quality is in constant change, the maintenance and improvement of these standards is important.

It is difficult to explain the concept of quality in higher education for some reasons.  The concept of quality is a general concept and the customer, the stakeholder and the existence of a complex environment for who determines the quality are some of these reasons.

| Key Partners and Collaborations | Basic Activities | Value Proposition | Customer Relationship | Customer Section |
|---|---|---|---|---|
| Government<br>High Schools<br>Institutions | Research<br>Education<br>Project | Preparing for Work Life<br>Experience<br>Graduate Network<br>Transportation to Experts | Advice<br>Graduates | Students<br>Families<br>Researchers<br>Graduates<br>Society |
| | **Basic Resources**<br>Talents<br>Campus<br>Research<br>Equipment | | **Channels**<br>Diploma<br>Employment on Campus | |

| Cost Structure | | Income Sources | |
|---|---|---|---|
| Real Estate | Staff | Research | |
| Product Development | Faculty | Tuition | Donations |

Figure 1: Example of University Business Model (Osterwalder Business Canvas)

When we look at the typical university business model of higher education institutions shown in Figure 1, the basic collaborators section are state and institutions, and the students, families, business world and society constitute the customer section. The fact that higher education institutions have a variety of income sources and cannot produce a concrete output due to their involvement in the service sector creates difficulties in explaining and creating the quality concept in higher education.

Performance criteria, accreditation, institutional evaluations and audits that enable quality measurements and quality improvement and adaptation of quality models from private sector to higher education institutions have recently attracted the public's attention on quality in higher education institutions (Sarrico vd., 2010). The diversity of international and national institutions in order to ensure quality in higher education institutions and their having a system of their own make the integrity of quality standards difficult. With this study, it is aimed to present international and national quality studies and compare the standards. Within the framework of the following title; first, international and then national quality studies will be explained. In the following sections, comparison of these quality studies will be given. Also, Marmara University Faculty of Business Administration will be evaluated in order to set an example for the quality studies applied in higher education institutions. Comparison of international and national quality studies and all the findings obtained in the case study will be evaluated under the title of "result and discussion".

**INTERNATIONAL QUALITY STUDIES ON EDUCATION**

Quality assurance systems of higher education institutions in Europe are shaped by the Bologna Declaration. Within the framework of the Bologna Declaration, the principles and standards issued by the European Association for Quality Assurance in Higher Education (ENQA) in 2005 have been adopted and implemented by higher education institutions. The main objective is to ensure that higher education institutions are compatible with each other and provide services at a comparable quality level (YÖK, Quality Assurance).

In 1999, the Bologna Declaration was signed in order to create a common higher education area in Europe with the participation of 29 member states. Turkey participated in the Bologna process in 2001 and in accordance with the principles and standards required by this process, the higher education system has entered into a major transformation (Çelik, 2012). Accreditation, which is gained importance with the Bologna process, is one of the value measures of a quality management system in higher education.

Accreditation is a quality assurance system that ensures all processes of higher education institutions are realized in accordance with international quality standards. Higher education institutions apply voluntarily to accreditation bodies to authenticate the quality of educational activities and to ensure the continuity of this quality.

In addition to accreditation, quality assurance is provided by the International Organization for Standardization (ISO). From past to present, many international and national higher education institutions have obtained ISO 9001 series certificates and proved the quality of educational activities.

In this part of the study, within the scope of international quality systems, quality certificates given by ISO and organizations providing accreditation services in the field of business sciences will be analysed.

**ISO - International Organization for Standardization**

ISO is an independent non-governmental organization established in Geneva on 23 February 1947, which consists of 162 member countries. Each member country is represented by an authorized body in the organization.

The ISO 9000 series standards published in 1987 by the International Organization for Standards show the ways to be followed for the establishment of a quality management system and are used in the evaluation of the quality system. ISO 9000 quality standards aim at quality management system rather than product / service quality (İlkay and Varinli, 2005). The most widely used international quality system is ISO 9001. Most organizations prove the quality of their production by adopting and applying the ISO 9001 series of internationally accepted general standards.

The current discussions on quality are related to the use of quality systems in the field of education. In recent years, quality management has gained importance in higher education institutions. In order to measure the quality in higher education institutions, performance criteria are developed, accreditation processes are attended, program based and institutional evaluation criteria are developed and quality management systems are audited.

Ensuring quality in education and making it sustainable requires that higher education institutions implement certain quality standards. In this context, some universities use ISO 9001 series quality standards. The ISO 9001 standard has been created by engineers and quality professionals involved in large industries, taking into account a manufacturing organization. Therefore, it is a controversial issue in the literature that a quality management system such as the ISO 9001 standard requires a number of regulations to be implemented in a higher education institution (Harvey, 1995; Maasy, 2003; Rosa et al., 2012).

**ISO 21001: 2018 Education Organizations - Management Systems for Educational Organizations**

ISO 21001 is a management system standard aligned with ISO 9001. ISO 21001 provides a common management tool for organizations offering educational products and services that meet the needs of educators and other beneficiaries. The standard in question deals with interactions between educational institutions' management systems, students and other interested parties.

According to the ISO 21001 standard, the training organization should consider the quality management approach as a strategic decision, taking into account the learning environment, changes in the environment and risks (ISO / DIS 21001). ISO 21001 ensures that students' needs are met more effectively. It can be applied to all educational institutions that provide information to students through education, training or research. This standard is in compliance with the ISO 9001 standard and conforms to the structure and operation of educational institutions and thus closes the gaps in the quality management system of educational organizations.

Potential benefits of the ISO 21001 system (International Standard ISO / DIS 21001 (Draft)):

- Ensuring a better alignment of the educational mission, vision, objectives and action plans,
- Inclusive and equal education for all,
- Facilitation of self-learning and lifelong learning opportunities,
- More personalized learning and effective response to distance learners and to learners with special education needs,
- Consistent processes and assessment tools to demonstrate and enhance effectiveness and efficiency,
- Increased reliability of the educational institution,
- To be a tool for educational institutions to show that they undertake effective quality management practices,
- A culture for institutional development,
- Harmonization of national and private standards in an international framework,

- Wide participation of interested parties,
- The stimulation of excellence and innovations are listed as.

## Accreditation

Accreditation is a quality assurance system where higher education institutions participate voluntarily in order to bring the quality to national and international standards and to ensure the continuous improvement of quality (Aktan and Gencel, 2010). The higher education institutions participating in the accreditation process are subject to internal self-evaluation and external evaluations by independent external institutions. Accreditation in higher education institutions is not a one-off process. Through internal and external audits, the continuity of quality in education is ensured. The quality assurance system carried out within the scope of accreditation focuses on educational components in higher education such as educational activities, research, publications and projects, academic and physical infrastructure (Özer et al., 2011). Quality studies carried out by higher education institutions based on a strategy in all processes in educational activities are evaluated within the scope of accreditation.

The accreditation board assigned by the Council of Higher Education (YÖK) supports the accreditation process in higher education institutions by registering independent accreditation institutions (YÖK, 2018). The fact that higher education institutions enters the accreditation process on an optional basis is seen as one of the most important steps towards maintaining the quality of education and the vision of the institution. Within the scope of our study, there are two important and widespread international accreditation bodies related to business schools: Association to Advance Collegiate School of Business (AACSB) and Quality Improvement System (EQUIS). The following sections introduce these international bodies.

## Association to Advance Collegiate School of Business

The Association for Advance Collegiate School of Business (AACSB) combines students, academics, and the business world with the goal of raising future leaders. Founded in 1916, AACSB offers quality assurance, business intelligence and professional development services to more than 1600 member organizations and more than 800 accredited business schools worldwide (AACSB, 2018).

The mission of AACSB is to encourage participation in business education, to accelerate innovation and to increase its impact. AACSB aims to transform business education for global prosperity. Organizations that are members of AACSB become part of a movement that is united to improve the quality of business education worldwide. AACSB combines innovation, quality and inspiration in the member network and business world. The collective power of the organization is based on different perspectives, a global mentality and a commitment to make a difference.

The main objective of AACSB accreditation is to encourage business schools to improve their business practices through academic education and effective intellectual contributions. AACSB achieves this goal by defining a set of criteria and standards, coordinating reviews and consultations, and recognizing high-quality business schools that meet standards and participate in the process (AACSB, 2018).

## Quality Improvement System

The EFMD Quality Improvement System (EQUIS) is an accreditation service offered to business schools by the European Business Development Foundation. The mission of the EFMD Quality Improvement System (EQUIS) is to increase the standard of business education worldwide. It covers all programs from first year to doctoral education. EQUIS accreditation provides a rigorous quality improvement process by comparing the school to a number of international standards such as governance, students, faculty, research, and most importantly, internationalization, ethics, responsibility and sustainability, and institutional links. EQUIS has been recognized worldwide and since its launch in 1997, it has accredited more than 170 institutions in 42 countries (EMFD).

## NATIONAL QUALITY STUDY ON EDUCATION

In establishing national standards; cooperated with international accreditation institution and commissions, and participated in programs and projects. Many institutions and organizations in Turkey support quality. Also, quality standards are established by regulations and laws. Laws and regulations issued in Turkey in order to establish quality standards in higher education will be examined below under separate headings.

### Laws

In 1981, enactment of the Law on Higher Education (law number: 2547) and in 1982, establishment of Council of Higher Education as the only institution responsible for higher education took the first steps towards quality activities. With the Law No. 2547, Quality Assurance System in Higher Education and Higher Education Quality Council were established and with the Law No. 5018, financial management and control were provided in higher education.

The Higher Education Quality Assurance System (YKGS) were implemented with Higher Education Law (No. 2547). YKGS includes the principles regarding the internal and external quality assurance of the education and research activities and administrative services of higher education institutions, accreditation processes and the authorization processes of independent external evaluation institutions. At the same time, together with this law, Higher Education Quality Council was established. Higher Education Quality Council is a public legal entity with the aim of evaluating the quality levels of higher education institutions' education and research activities and administrative services in accordance with the national and international quality standards, and coordinating the processes of accreditation, internal and external quality assurance, and authorization of independent external evaluation organizations (the Law on Higher Education (law number: 2547)).

The Public Financial Management and Control Law (No. 5018), which came into force in 2003, is a regulation that obliges the public institutions to act in accordance with the strategic plans after the harmonization process of our country with the European Union (Gürer, 2006). In accordance with the provisions of this Law and the Regulation on Procedures and Principles Regarding Strategic Planning in Public Administrations prepared on the basis of Article 9 of this Law, strategic planning procedures and principles of public institutions are based on certain rules and standards. (The Public Financial Management and Control Law (No. 5018) and Regulation on Procedures and Principles Regarding Strategic Planning in Public Administrations). This situation brought the internal auditing system to public institutions. No doubt; with these laws and regulations, the introduction of significant standards and rules in financial management to public institutions and the internal audit that has been established, have been condition that nourishes quality works in public institutions. Standardization, which has a great place in quality management, has been made compulsory by law in the field of financial management in public institutions.

### The Regulation on Higher Education Quality Assurance

In 1981, the Council of Higher Education (YÖK) was established by the Law on Higher Education (law number: 2547). The Council of Higher Education is responsible for the planning and execution of higher education establishment in Turkey (YÖK, 2018). As a result of the transfer of some powers that are under the responsibility of the University to YÖK, there is a centralized structure in higher education. With this structure, many studies have been carried out to ensure quality in higher education. Before explaining The Regulation on Higher Education Quality Assurance and Higher Education Quality Council, it is possible to summarize the developments regarding the quality activities in higher education in Turkey in that way;

- 1981: Law on Higher Education (law number: 2547)
- 1982: Council of Higher Education
- 1997: Turkish Universities Quality Determination Project
- 2001: Bologna Process
- 2003: The Public Financial Management and Control Law (No. 5018),
- 2005: Regulation on Academic Evaluation and Quality Improvement in Higher Education
- 2006: Council of Academic Evaluation and Quality Improvement in Higher Education Institutions (YÖDEK)
- 2007: Membership of The European Association for Quality Assurance in Higher Education (ENQA)
    - 2007: Guidelines for Academic Evaluation and Quality Improvement in Higher Education Institutions

- 2015: The Regulation on Higher Education Quality Assurance (YKGY)
    o 2015: Higher Education Quality Council (YKK)

Higher Education Quality Council (YKK) was established on 23 July 2015 with The Regulation on Higher Education Quality Assurance (YKGY) published by the Council of Higher Education (YÖK).  With this regulation, it has become obligatory to quality commissions in higher education institutions. Within the scope of this regulation, issues related to quality standards such as accreditation in higher education, internal and external evaluation and strategic planning and contributing to standardization are discussed (YKGY, 2015).

The General Assembly of the Higher Education, the Inter-University Board and other relevant stakeholders are included in members of Higher Education Quality Council. In addition to these members, a student representative is also on the Higher Education Quality Council. The wide range of Higher Education Quality Council members has provided an opportunity all stakeholders related to quality activities in higher education to be given the right to speak.  Higher Education Quality Board consists of Corporate External Evaluation Commission (commission responsible for the preparation of internal evaluation reports by the Higher Education Institutions every year and obligatory external evaluation by Higher Education Quality Council every five years), Quality Assurance Agency Registration Commission (Commission carrying out general regulations on the authorization of External Evaluation and Accreditation Bodies) and Commission of Dissemination of the Quality Assurance Culture (YKK, 2018).

## METHOD

The aim of this study is to examine the activities carried out in order to provide quality in education, to reveal similarities and differences in related quality standards, and to analyze the activities carried out for quality management in an educational institution. ISO 9001, ISO: 21001 and AACSB, and YKGY and 5018 numbered national law were included in the scope of the study. The scopes of these related quality standard documents have been determined by looking at their table of contents, and the similarities and differences within the scope of these documents have been presented in the Quality Standards Comparison Matrix section. Then, quality studies conducted at Marmara University Faculty of Business Administration were examined in terms of creating a case study within the scope of this research and the results were discussed.

### Quality Standards Comparison Matrix

ISO, 9001, ISO: 21001 and AACSB quality standards have been selected internationally. Another reason for comparing AACSB quality standards is the selection of the faculty of business as a case study. The Law No. 5018, which is obligatory for the higher education institutions in our country and the Higher Education Quality Assurance Regulation prepared by the Higher Education Quality Board have been selected from the national standards. The headings are included in the table of contents (Table 1). Table 1 shows the scope of the standards.

When the matrix is examined, resource management takes place in all studies, whereas strategic planning, leadership, internal audit and customer / student focus are included in most of the studies. ISO: 21001, which is created for educational institutions, it is seen that it had all of the ISO: 9001 titles but it is more specific with the titles related to education and Research&Development activities. At the same time, ISO: 21001 has a more comprehensive structure than the other studies. While the AACSB standards set out in order to carry out the accreditation studies of the business schools, it differs with the innovation title which is not included in other studies. It is understood that they carry out studies towards a narrower area with the scope of not covering most of the ISO: 210001 titles. When all of the studies carried out in our country are examined, it is seen that there are similarities with international studies under many titles. Unlike the international studies, the studies conducted in our country also include headings for external audit activities. In addition, the headings on the establishment of the information management system and the support activities were not included in other studies, while the standards for these headings were included in YKGY.

On the other hand, the extent to which these standards and laws addressed are also important. For example, about Resource Management topic, which is addressed by all studies, each study has different dimensions and details. ISO 9001 mentions about establishment, implementation, maintenance, continuous improvement of Quality Management System and determines the necessary resources and processes for the operation of the

physical, social, psychological, environmental factors. It also includes monitoring and measurement of resources. ISO 21001, in addition to ISO 9001, manages human resources, organizational knowledge; to address the needs of the products and services, to obtain the necessary additional information and necessary updates, and to reflect the needs and requirements of the students in relation to their learning resources.

AACSB, as one of the accreditation bodies, emphasizes that the school should be structured in an accountable manner and that it must have policies and processes to support and continuously improve the physical, human, infrastructure and financial resources specified in ISO 9001. In YKGY, under the heading of Resources Management, it is stated that the organization should have a management system to ensure that it uses its human resources, financial resources and all of its movable and immovable resources effectively and efficiently. Finally, Law No. 5018 defines the public resources as public revenues, movable and immovable including the facilities obtained through borrowing, and the money, receivables and rights found in the accounts and all kinds of values. According to Law No. 5018, the strategic plan should include resource allocation. Related to the resource management of the law in question: Those responsible for obtaining and using all kinds of public resources are responsible for obtaining, using, accounting, reporting and taking necessary measures to prevent misuse of the resources in an effective, economic, efficient and legal manner and has to account for the authorities. In order to provide public services at the desired level and quality, public administrations, their budgets and program have to base on their strategic plans, annual goals, targets, and performance indicators. Public administrations prepare activities, projects and their resource needs based on performance targets and indicators. In this context, when each standard document is examined under the title of resource management, it is seen that the law no. 5018 and ISO 21001 standard address the resource management title in a wider scope.

Table 1: Comparison Matrix of International and National Quality Studies.

| SCOPE | INTERNATIONAL | | | NATIONAL | |
|---|---|---|---|---|---|
| | ISO 9001: 2015 | ISO21001: 2018 | AACSB | YKGY | Law No. 5018 |
| | General | Education Institutions | Business Schools | Higher Education Institutions | Fiscal Issues |
| Resource Management | * | * | * | * | * |
| Strategic Planning | * | * | * | | * |
| Leadership | * | * | * | | * |
| Internal Audit | * | * | | * | * |
| Customer Oriented / Student Oriented | * | * | * | * | |
| Continuous Improvement | * | * | | * | |
| Performance Evaluation | * | * | | * | |
| Quality of Suppliers | * | * | | * | |
| Traceability | * | * | | * | |
| Communication | * | * | * | | |
| Competency | * | * | * | | |
| Control Activities | * | * | | | * |
| Education - Research and Development Activities | | * | * | * | |
| Policy | * | * | | | |
| Development | * | * | | | |
| Documentation | * | * | | | |
| Requirements | * | * | | | |
| Measurement | * | * | | | |
| Commitment | | * | * | | |
| Accessibility | | * | | * | |
| Transparency/Accountability | | | | * | * |
| External Audit | | | | * | * |
| Efficiency | | | * | * | |
| Data Security | | + | | | |
| Provision of Service | | + | | | |
| Learning Centeredness | | + | | | |
| Social Responsibility | | + | | | |
| Feedback | | + | | | |
| Ethic | | + | | | |
| Innovation | | | + | | |
| Support Activities | | | | + | |
| Information Management System | | | | + | |

*denotes topic included in more than one document and + denotes topic included only this document.*

**Quality Studies of Marmara University Faculty of Business Administration**

An example of the quality studies conducted in higher education institutions is Marmara University Faculty of Business Administration quality studies. Although the quality studies in the faculty were based on the past years, in 2016, with the establishment of Quality Coordination Office, quality studies gain speed and continuity

is achieved. The studies to ensure the quality standards within the Faculty are as follows;

1. Establishment of Quality Coordination Office

In 2016, the Quality Coordination Office was established within the Faculty. With this organization, it is aimed to continue the quality studies one by one and continuously.

2. Updating the organizational chart

The organizational structure has been updated and the Quality Coordinator has been included in the structure in order to clarify the administrative process. With this change, it is aimed to clarify the structure of the management and to determine the direction of communication.

3. Preparation of Faculty Process Management Handbook

In the Faculty Process Management Handbook, a work flow diagram and a process management form have been created for 132 work items from 7 different units within the faculty. In order to reveal the details of the works carried out and to make the work processes distinct, the processes were analyzed independently.    4.     Job definition and job requirements update

Job descriptions and job requirements were re-established after the analyzes made for the works carried out within the faculty. The job descriptions and job requirements created after the process analysis in the management activities. Efficient working environment ensured that have an important role in the compliance of the personnel and the work.

5. Updating forms used in business processes

Although there is a transition to electronic system within the faculty, written forms are frequently used especially in administrative affairs and student faculty communication. The reorganization and restructuring of these forms to certain standards is another work done within the quality studies. Former and outdated forms have been modified and some removed.

6. Preparing faculty risk maps

Risk maps have been formed in order to determine the risks that may threaten the objectives and targets of the institution. With these risk maps, all the probabilities which may adversely affect the administrative and educational activities of the faculty are determined with their degree of impact. It is aimed to preserve the quality by anticipating the threats, measuring the possible effects and determining the measures to be taken.

7. Studies carried out under the AACSB process

Marmara University Business School has been carrying out AACSB accreditation process studies since 2015. Since August 2016, our faculty is a AACSB member of the School of Management. With the accreditation process, international standards have been established and continues to be established in the fields of education, teaching and research and development.

8. Quality Association (KALDER) membership

The Faculty joined the National Quality Movement when it became a member of KALDER, national quality organization in our country. Simultaneously, the faculty, which adopts the EFQM Excellence Recognition program, has created a road map in this direction and started its quality studies under the guidance of KALDER. Within the scope of National Quality Movement, faculty will be subject to self-evaluation and external evaluation process.

9. Establishing corporate information, communication and reporting system

Within the faculty, many forms were processed manually. They carried out to the Information Management System. Moving the works to the Information Management System has also increased productivity and strengthened communication.

In 2017, the Faculty also organizes the national and international quality standards that are best suited to its vision, mission and strategy based on the principles of planning, periodic monitoring and improvement. Marmara University Faculty of Business Administration, which has taken many steps in creating the most suitable quality assurance system, has become a case which can be an example to other higher education institutions with its quality studies.

## CONCLUSION

In recent years, quality management has gained importance in higher education institutions. In order to measure the quality in higher education institutions, performance criteria are developed, accreditation processes are entered, program based institutional evaluation criteria are developed and quality management systems are audited. Ensuring quality in education and making it sustainable require that higher education institutions

implement certain quality standards. Within the scope of this study, national and international quality standards (excluding laws) that are strategic level guiding and framework-setting documents, examined for the Faculty of Business. Within the framework of these strategic documents, each institution should establish its own security system by placing its own tactical, operational and technical documents and processes. A quality assurance system that provides good results for a higher education institution may not yield good results for the other institution. The most important point for institutions that are starting or working in quality studies in higher education institutions is to establish a sustainable quality assurance system that best suits their mission, vision and objectives. The quality assurance system is also part of an organization's corporate business intelligence. The established quality assurance system should be designed as a system where the organization benefits, improves its processes and increases efficiency as it is carried out, operated and perceived as a lot of unnecessary registration tasks that must be done before the internal and external evaluation processes. It should be a continuous system that everyone is aware of and participates in not only in certain periods of time as unwanted tasks.

## REFERENCES

AACSB International, Eligibility Procedures and Accreditation Standards for Business Accreditation, (2018), Retrieved From: https://www.aacsb.edu//media/aacsb/docs/accreditation/business/standards-and-tables/2018-business-standards.ashx?la=en

Aktan, C. C., & Gencel, U. (2010), Accreditation in Higher Education. *Organizasyon ve Yönetim Bilimleri Dergisi*, 2(2), 137–155.

Balcı, A. (1998), Yuksekogretimde Toplam Kalite Yonetimi Olcegi. *Educational Administration: Theory and Practice,* 4(15), 319-334.

Celik, Z. (2012), The Impacts of Bologna Process on European Higher Education Systems. *Journal of Higher Education & Science*, 2(2).

Damar, M., Ikiz, A. K., Ozdagoglu, G., Ozler, C., Arbak, Y., Tuncel, P. & Yaparel, R. (2017), Designing Student Feedback System within the Course Evaluation Process: Dokuz Eylül University Case Study. *Journal of Higher Education & Science,* 7(1).

Draft International Standard, ISO/DIS 21001 ISO, Educational Organizations, Management Systems for Educational Organizations, Requirements with Guidance for Use. (2018), Retrieved From: http://snacademycenter.com/wp-content/uploads/2017/07/ISO-DIS-21001-Educational-organizations.pdf

Duque, L. C. (2013), A Framework for Analyzing Performance in Higher Education. *Business Economic Series 03 Working Paper*, 13-24.

EFMD Quality Services, (2018), Retrieved From: https://efmdglobal.org/wp-content/uploads/EFMD_Global-Quality_Services_Brochure.pdf ,

Gokce, F. (2010), The Evaluation of Teachers and Students' Behavior in Terms of Quality Education (Supervisors' Views). Journal of Uludag University Faculty of Education, 23(2), 415-432.

Guven, C. M. (2006), The Studies of Development of The Faculty Evaluation Sclae. Ondokuz Mayis University Journal of Education Faculty, 21(1), 63-72.

Harvey, L. (1995), Beyond TQM. *Quality in Higher Education,* 1(2), 123-146.

Harvey, L. (2002), The End of Quality? *Quality in Higher Education*, 8(1), 5-22.

ISO Survey of Certifications to Management System Standards. (2018), Retrieved from: https://isotc.iso.org/livelink/livelink?func=ll&amp;objId=18808772&amp;objAction=browse&amp;viewType=1

Ilkay, S. & Varinli, I. (2005), ISO 9001: 2000 Kalite Yonetim Sistemi: Dunya, Avrupa ve Turkiye Uygulamalarinin Karsilastirilmasi. Erciyes University Journal of Economics and Administrative Sciences, (25), 1-19.

The Public Financial Management and Control Law (No. 5018), Publication Date in the Official Gazette: 24/12/2003, No of the Official Gazette: 25326

Korkmaz, I. (2007), Ogrenci Merkezli Ders Uygulamalarina Iliskin Ogrenci Gorusleri. Selcuk University Journal of Institute of Social Sciences, 17(2007), 393-402

Massy, W. F. (2003), *Honoring The Trust: Quality and Cost Containment in Higher Education.* Anker Publishing Company, Inc., PO Box 2247, Williston. VT 05495-2247.

Nurluoz, O., Birol, C. & Silman, F. (2010), Examining Administrative Behaviors of Educational Administrators in Universities by Perceptions of Academic Staff and Students. *Educational Administration: Theory and Practice,* 16(4),579-599.

Ozer, M., Gur, B. S., & Kucukcan, T. (2011), Quality Assurance: Strategic Choices for Higher Education in Turkey. *Journal of Higher Education and Science*, 1(2), 59–65.

Rosa, M. J., Sarrico, C. S., & Amaral, A. (2012), Implementing Quality Management Systems in Higher Education Institutions. *Quality Assurance and Management*, 129-146.

Sarrico, C. S., Rosa, M. J., Teixeira, P. N., & Cardoso, M. F. (2010), Assessing Quality and Evaluating Performance in Higher Education: Worlds Apart Or Complementary Views?. *Minerva,* 48(1), 35-54.

Sahin I., Zoraloglu, R. Y. & Firat, Ş. N. (2010), University Students' Opinions About Factors Affecting Their Achievement of Educational Goals. *Inonu University Journal of the Faculty of Education*, 11(2), 133-154.

Tezsurucu, D. & Bursalioglu, A. S. (2013), Change in Higher Education: Quality Searching. *Kahramanmaras Sütcü Imam University Journal of Social Sciences,* 10(2), 97-108.

Tortop, S. H. (2013), Preservice Teachers' Metaphors about University Teacher and Metaphor as an Evaluation Tool. *Journal of Higher Education and Science*, 3(2), 153-160.

Universal Standards for Quality in Education, Commonwealth Secretariat 2017, Retrieved From: https://www.thecommonwealth-educationhub.net/wpcontent/uploads/2016/05/Quality_Standards_Educati on_ 2017_07.pdf.

YÖK, Offical Web Site:www.yok.gov.tr Date: December, 2018.

The Regulation on Higher Education Quality Assurance, Publication Date in the Official Gazette: 23.07.2015, No of the Official Gazette: 29423

YÖK, Assurance of Quality, (2018). Retrieved From: http://yok.gov.tr/ar/web/uluslararasi-iliskiler/kalite-guvencesi1,

Higher Education Quality Council, Offical Web Site:http://www.yok.gov.tr/web/kalitekurulu Date: December, 2018.

Law on Higher Education (Law no: 2547), Publication Date in the Official Gazette: 06.11.1981, No of the Official Gazette: 17506.

# THE USE OF CONTEXT IN TEACHING GRAMMAR AND ITS INFLUENCE ON EFL SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN GRAMMAR RULES

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**ABSTRACT**

This study aims at  finding out the use of context in Teaching grammar and Its influence on EFL Secondary school students 'achievement in Grammar Rules.To achieve the aims  of the study, null hypotheses have been put on after being subjected to experiment. Fifth stage of secondary school (female) students' in the city center of  Masin , during the second term of the academic year 2017-2018. The sample of the study consists of (64) subjects, (32) students represent the experimental group, and (32) students  represent the  control group. While the control group has been taught by using " English for Iraq '5th preparatory SB, the experimental group has been taught by using  grammar in context  book .The researchers taught  both the experimental group as well as the control group. The result of study shows that there is no a significant statistical difference between the mean scores of the development of the experimental group taught by "Grammar in context book" of the pretest and the posttest.

**Key words:** Grammar in Context, Achievement

## 1. Introduction
### 1.1   The Problem and its Significance

 Through the researchers' experience as English teachers, they confirm that it is difficult for the students to receive the English language rules and apply them practically and functionally. In addition to that English teachers always complain of the low level of students' achievement in English. All this in turn triggered the researchers conduct this study which is based on teaching grammar in writing contexts, to give students an opportunity to use it practically. The researchers hope that this study will contribute in improving the students' level in using grammar and also in providing teachers with an effective strategy of grammar teaching. So the problem of this study  can be formulated in the following major question: What is the effect of teaching grammar in writing contexts to enhance using "grammar in context  books" on Developing  Students' Achievement in Grammar**?**

The following questions are derived from the researches questions:
1. What are the objectives of grammar lessons intended to be enhanced through        "grammar in context books" for the fifth secondary?
2. Are there statistically significant differences at ($\alpha > 0.05$) between students' mean scores of the control group and the experimental group in the achievement test?

### 1.2 The Aim of the Study:
Finding out the use of context in Teaching grammar and Its influence on EFL Secondary school students 'achievement in Grammar Rules.

### 1.3 The Hypotheses:
The following hypotheses were derived from the main question:
1. There are statistically significant differences at ($\alpha > 0.05$) between students' mean scores of pre and post application of the achievement test of the experimental group in favor of posttest.
2. There are statistically significant differences at ($\alpha > 0.05$) between students' mean scores of the control group and the experimental group in the achievement test in favor of experimental group.

### 1.4 Value of the study
The value of the study is dedicated by the following facts:
1.The importance of the use of context  in teaching grammar  and its influence on   EFL Secondary school Students' achievement in grammar rules.
2. Providing researches and studies' students with the results of the current studies, tools and the procedure for conducting similar studies in the future.

**1.4 Limits of the Study**

The current research is limited to:

1- A sample of fifth stage of secondary school (female) students in the city center of Masin , during the second term of the academic year 2017-2018.

2- Grammatical subjects , as established in the curriculum English For Iraq(unit 5.6.7)  for control group and "Grammar In Context book "for experimental  group

**1.5 Definition of the Terms**

**1.5.1 Context**

The researchers adopt the following definitions:

Kokshetau (2007: 23) states that, context means the situation or body of information, which causes language to be used.

**1.5.2 Grammar in Context**

 It is a guide to some key features of English grammar. Exploring grammar in context is different from traditional grammar books because many of the examples are taken from real contexts of grammar in use. These authentic examples show speakers and writers using the language to communicate in a wide variety of contexts. Like most grammar books which often illustrate grammatical forms by means of single sentences, several of the examples involve single sentences. But in here, the emphasis on grammar in context means that the examples also frequently contain several sentences or short conversational extracts and show grammar at work across the boundaries of the sentence or the individual speaking turn. This technique regularly draws attention to grammar as choice and gives the learner opportunities to exercise grammatical choice in relation to particular contexts in which the language is used (Carter et al., 2000: vii). Many learners are likely to use English to learn another subject during their education and the choice of text tries to reflect this fact. Some texts contain information which learners should find interesting or challenging. The intention in general is that language should have a familiar context and that learners should have something to use language for. Within each unit, exercises range in difficulty. This allows learners to build up their confidence with the simpler, more familiar tasks before moving onto the more challenging ones later in the unit (Michael Vince,2012:3,Charles and Alessandro, 1992).

**2. Theoretical Background**

**2. 1. Types of Context**

There are a number of different context types, the students' world, the outside world and formulated information.

• **The students' world** can be a major source of contexts for language presentation. There are two kinds of students' world. Clearly we can use the physical surroundings that the students are in - the classroom, school or institution. But classrooms and their physical properties (tables, chairs, windows, etc.) are limited. The students' lives are not constrained in the same way, however, and we can use facts about them, their families, friends and experiences.

• **The outside world** provides us with rich contexts for presentation. For example, there is an almost infinite number of stories we can use to present different lenses. We can also create situations where people speak because they are in those situations, or where the writer describes some special information. This is especially useful for the practice of functional language. We can ask students to look at examples of language which show the new language in operation, though this last category can sometimes have no context. These three sub-categories, story, situation or language, can be simulated or real. Most teachers are familiar with 'made-up' stones which are often useful for class work: real stories work well too, of course. In the same way they can create the simulation of an invitation dialogue, for example. But here again they could also show students a real invitation dialogue. In general it can be said that real contexts are better simply because they are real, but they may have complexities of language.

• **Formulated information** refers to all that information which is presented in the form of timetables, notes, charts etc. Once again teachers can use real charts and timetables, growth statistics, etc.

**3. Research Design and Method**

Experimental research design: is "an experiment where the researcher manipulates one variable and controls/randomizes the rest of the variables. It has a control group and experimental group, the subjects have been randomly assigned between the groups, and the researcher only tests one effect at a time" (Shuttleworth, 2008).

In order to test the hypotheses of the study, an experimental research design was used. The sample of the study was divided into two groups: an experimental group and a control group. The researchers applied the experiment on the experimental group to identify the effect of Grammar in Context to enhance using grammar functionally for fifth stage. On the other hand, the control group was taught in the ordinary way. The researchers explained the strategy of Teaching Grammar through teacher's guide and lesson plan for each class .

### 3.1 The Population

It covers all fifth -grade students who are studying at Al-Bayan School for Girlsin Masin, in the 2nd semester in the academic year (2017/2018). They are (64) students distributed in (2) classes.

### 3.2 The Sample of the Study

The study sample is selected purposefully from AL-Bayan  Secondary School for Girls in Masin. Two classes of the study population are selected; the first class of (32) students present the experimental group and the second of (32) students present the control group. The sample is selected from the same school to be equivalent in the social, cultural, economic and academic levels.

### 3.3 Instrument

The researchers used two instruments to achieve the aim of the study:
1. Grammar achievement test
2. A teacher's book and lesson plan for (3) lessons from the second semester of the academic year (2017- 2018) based on teaching grammar in writing contexts strategy. Each lesson has worksheets and evaluation sheets for students to work out.

### 3.3.1 Grammar Achievement Test

The grammar achievement test was prepared by the researchers to measure the students' achievement in the grammatical rules .

### 4.1 Presentation of Results

The current chapter deals with the data obtained to present the total scores of the test.  The results can be stated as follows:

**1.** One sample T-test for correlated groups has been used in order to know if there is a significant difference between the results of the pretest and posttest of  in each group, namely the experimental and control groups. This has been done to test the first main hypotheses which state that:

**1.1** "There are statistically significant differences at ($\alpha > 0.05$) between students' mean scores of pre and post application of the achievement test of the experimental group in favor of posttest ".

In this respect, a significant statistical difference has been found in the experimental group, at (0.05) significance level and (14) degrees of freedom, between pretest and posttest scores and in favour of the posttest of speaking skill of the Experimental Group .See Table (7).
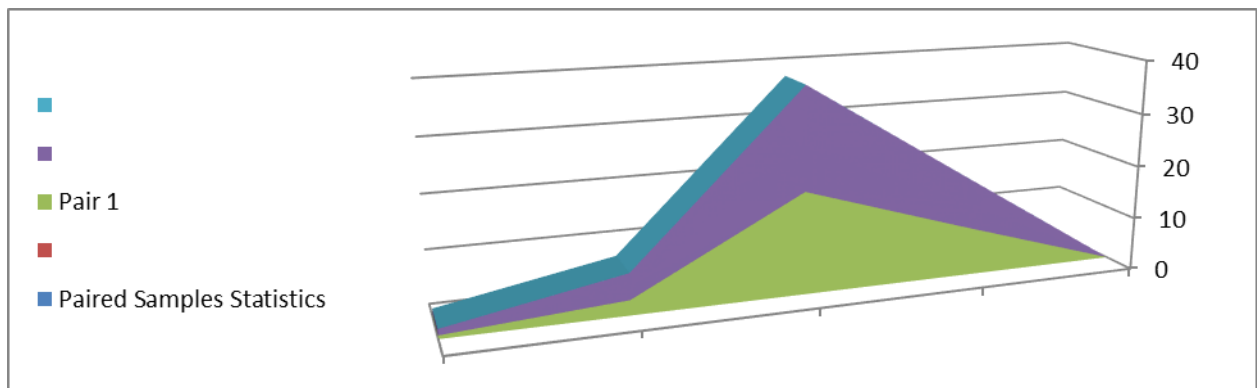
N=15T-tabled value at (0.05) level, (14) df=1.67        (Ferguson, 1976:487)

| T-Values calculated | Differences Results | | Test Means | | Linguistic aspects |
|---|---|---|---|---|---|
| | SD. | Mean | Pre-test | Post-test | |
| 1.23 | 1.04 | 8.33 | 8.33 | 5.53 | The Test |
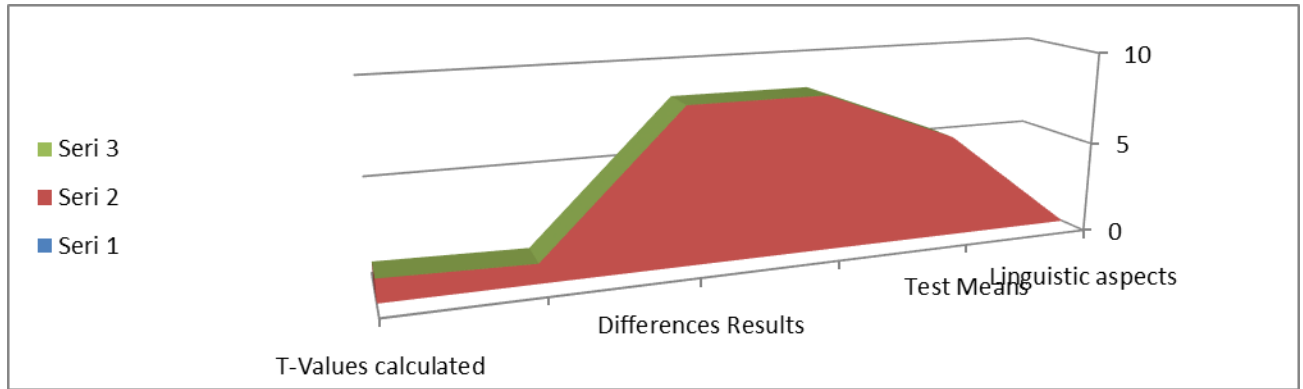
**Paired Samples Statistics**

|  |  | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | BEFOR | 9.3684 | 19 | 2.79306 | .64077 |
|  | AFTER | 9.5789 | 19 | 4.84557 | 1.11165 |



**4.2 Discussion of Results**

   In the current study, the results show that there has been a significant statistical difference between students' mean scores on posttest for the experimental group taught by using Grammar in context and the control group taught by using conventional method in favor of the former. Such results may be attributed to the following:

1- The influence of using Grammar in context in teaching English, which results in substantially, increased students'development.

2- The influence of using grammar in context in teaching language skills, it has been found to facilitate learning and provide meaningful contexts in which the various language skills can be practiced and developed. It is also a style which provides the pupils with an opportunity to practice communication, for the sake of developing his/her speaking and writing ability.

**5.1 Conclusions**

In the light of the results arrived at, the following concluding point can be stated:

1.Using Grammar in context  can be considered as an activity style in teaching English for fifth secondary students', because of the positive effectiveness on the development of English language skills.

2. The use of Grammar in context correctly developed, vocabulary, and grammar, also developed spelling of writing skill.

**5.2 Recommendations**

In the light of the results which are arrived at and an attempt to develop speaking and writing skills, the researcher recommended the following:

1- Teachers should use Grammar in context that are useful to their students' in order to enhance students' proficiency and help them to achieve their goals.

2- The prescribed textbook must provide more passages , aim to develop language  skills.

3. The teacher's guide must involve the steps of using Grammar in context  and the procedure of preparing them.

4- Providing secondary schools with some games which are related to the prescribed textbook and appropriate to the level of the students.

5- Educational administration should provide Grammar in context  in training English teachers.

**5.3 Suggestions**

Based on the findings of the current research, the researcher suggests carrying out the following studies:

1- The influence of using Grammar in context on the development of some English language skills of male students.

2- The influence of using Grammar in context on students' achievement at the elementary or intermediate level and attitude or interest.

3- students' attitudes towards the use of the Grammar in context in TEFL in the higherschools.

4- Carrying out similar studies on other language skills.

**References**

Carter R. et al. (2000). *Exploring Grammar in Context: Upper-Intermediate and Advanced*. Cambridge University Press, Cambridge, United Kingdom.

Charles G. and Alessandro D. (1992). *Rethinking Context: An Introduction, in Rethinking Context: Language as an Interactive Phenomenon*. Cambridge Univ. Press:Cambridge.

Kokshetau, Abileva G.K. (2007). *"Teaching English Grammar". Coursework* Retrieved on May 20, 2010 from: http://revolution.allbest.ru/languages/00020522_0.html.

Shuttleworth, M. (2008). *"Definition of Research". Experiment Resources*. Retrieved on Aug11, 2010 from: http://www.experiment-resources.com/definition-of-research. html

Vince, M.(2012) *Macmillan English Grammar  in Context*. :MacmilIan Publishers Limited

**Appendix (1)**