CURRENT ISSUES AND APPROACHES IN SOCIAL AND HUMANITY SCIENCES

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INTRODUCTION:

The century we live in does not only mean a new age, but also means a different historical time in terms of social, political and economic developments. The effects of this new period, called globalization and the information society, especially in terms of economic and social relations, are seen to bring new dimensions in the relations between Labor and capital on working life and labor. The new dimensions of globalization and the information society have brought new issues to the agenda in the Social Sciences.

The new problems that arise with the reflection of globalization on social and economic life, from the industrial age to this side, are now shaking the institutionalized industrial society structure and social order, causing structural changes in the mechanisms regulating the working relations of the industrial society. Globalization is a process that changes balances and creates new structures in the name of economic growth and capitalist development. Therefore, new method approaches are needed in the field of Social Sciences that will enable the social and humanities to develop again.

In this book, which examines new approaches in the field of Social Sciences, seven studies prepared by ten valuable researchers in the fields of Social Sciences, Education, Management, Communication and environment are included. This research, which will be read with interest by anyone interested in the field of Social Sciences, once again reveals the structure of social and humanities open to continuous development. It is our greatest

wish that the study be useful to researchers, students and readers interested in the social and humanities sciences.

Assoc. Prof. Gokhan OFLUOGLU
Zonguldak, August, 2019

CHAPTER 1:

CONTINUOUS AUDITING AND CONTINUOUS MONITORING

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INTRODUCTION

The financial scandals and the measures taken as a result of these have brought the audit profession to different dimensions. The increasing importance of risk management and control within business management has led to the necessity of providing full-time and continuous assurance services on these systems. Businesses are increasingly faced with significant risks of material error and fraud. Because of globalization, legal regulations, market pressure on improving operations and rapidly changing business conditions, systems are needed to provide timely and continuous assurance that internal controls operate effectively and measures are taken against risks. At this point, internal control and internal audit are insufficient, and ultimately, traditional audit methods have begun to be replaced by audit methods applied in the digital environment called Continuous Auditing.

With reduced risk tolerance of business management and increased ease of technological developments in managing business data, the Continuous Auditing approach emerges as a usable tool to better understand and control many processes of business.

Real-time assurance can be achieved through Continuous Auditing and continuous monitoring. Continuous Auditing (CA) and Continuous Monitoring (CM) increase the effectiveness of internal audit practices, enable early detection of risk and increase reliability and transparency.

Continuous control and monitoring applications are digital technology intensive methods, so the establishment of the system will

bring a certain cost burden to enterprises. However, considering the benefits it provides, it is possible to say that Continuous Auditing and Monitoring applications will be increasingly used.

1. DESCRIPTION OF CONTINUOUS AUDITING AND CONTINUOUS MONITORING

With the developing technology, the programs used in auditing have become more qualified. At the latest level of technology, it is now possible to detect errors and frauds shortly before they emerge. The type of auditing that enables such audit is called Continuous Auditing.

The most common definitions used for Continuous Auditing are included in the research report published by CICA / AICPA in 1999. According to this definition, “Continuous Auditing is the method that provides written assurance regarding the transactions within the scope of audit, either immediately or shortly after the transactions take place." (CICA/AICPA, 1999).

Continuous Auditing is a type of audit that is performed by using special computer aided audit programs (such as ACL, IDEA) which enables the auditing of information produced in real-time accounting information system without the need for physical documents. Possible errors and frauds in this system can be detected by the scenarios integrated into the programs before they happen. Therefore, the control of the future is made, not the past. This is possible with a number of scenarios integrated into the programs used. Each audited event is a scenario and scenarios vary according to the

structure of the enterprises and the sectors in which they operate. It is possible to continuously increase and develop these scenarios through the programs used. Programs can scan continuously to detect any abnormality without the need for human intervention and send alerts to those concerned very close to the moment of the event or very soon. In addition, Continuous Auditing provides the opportunity to audit all information without the need for sampling.

Continuous Monitoring (CM) refers to the processes used by management to ensure that policies, procedures and business processes operate effectively. It generally takes the responsibility of management to assess the adequacy and effectiveness of controls. Many of the continuous monitoring techniques used by management are similar to those used by internal auditors for Continuous Auditing (KPMG, 2009). The IAA defines CM as follows: “CM is a process designed to ensure the efficient functioning of policies and processes and to assess the adequacy and effectiveness of controls” (CICA/AICPA, 1999).

Continuous Monitoring is a process that management puts into practice in order to ensure the effective operation of its policies, procedures and business processes. Management identifies critical control points and performs automated tests to determine whether or not these controls are operating correctly. The continuous monitoring process includes automatic testing of all processes and system activities in a given business process area according to a control rule. Monitoring is typically performed on a daily, weekly or monthly basis, depending on the nature of the underlying business cycle.

Depending on the specific control rule and related test and threshold parameters, some operations are marked as control exceptions and reported to management. Management's monitoring function can also be linked to key performance indicators (KPIs) and other performance measurement activities. It is the management's responsibility to respond to monitoring alerts and notifications, to remedy control deficiencies and to correct erroneous transactions (Coderre, 2005).

Traditionally, control tests of internal auditing are performed retrospectively and cyclically, usually months after the commercial activities take place. Test procedures are usually based on a sampling approach and include activities such as review of policies, procedures, approvals and conciliations. Continuous Auditing is a method used to perform control and risk assessments automatically more frequently. Technology is the key to enabling such an approach. Continuous Auditing changes the audit paradigm from a review of a particular transaction instance to an ongoing audit test of 100 percent of transactions. It becomes an integral part of modern control at many levels. Performance monitoring activities should also be closely linked to management activities such as balanced scorecard and enterprise risk management (ERM). The Continuous Auditing approach enables internal auditors to fully understand the critical control points, rules and exceptions. Continuous Auditing integrates all aspects of the audit process from the development and maintenance of the corporate audit plan to the conduct and monitoring of specific audits (Coderre, 2005).

1.1. History of Continuous Auditing

It is possible to say that the foundations of Continuous Auditing started with automatic control tests in the 1960s. Automated control tests have been used by a small number of enterprises due to difficulty in their usage and installation. In the 1980s, together with the developments in information technologies, computer-assisted audit tools and techniques (CAATT) began to be used for special investigations and analysis. It is possible to say that Continuous Auditing started with CAATT (Kıymetli Şen, 2016). The development process of Continuous Auditing is summarized in Table 1.

Table 1: Continuous Auditing Development Process

1960s	Installation and implementation of embedded audit modules (EAMs). However, these modules were used in relatively few organizations and were difficult to build and maintain.
1980s	Initial use of computer-assisted audit tools and techniques for ad hoc investigation and analyses (CAATTs).
1980s	Continuous monitoring was introduced in an academic context. However, auditors lacked easy access to software tools, technical resources and expertise was limited, data access was challenging. Moreover, a cultural change by organizations and auditors was required.
1990s	Increasingly widespread adoption of data analytic solutions, which were viewed as a critical tool to support the testing of the effectiveness of internal controls. However, traditional audit processes often relied on representative samples, with analysis taking place after the completion of the business activity.
Today	Today, proliferation of information systems in the business environment gives auditors easier access to more relevant information.

Source: https://www.tide.org.tr/file/documents/pdf/Aristotelis_ Malliaros_Evolving_Internal_Audit.pdf

The concept of Continuous Auditing was first introduced by (Vasarhelyi & Halper, 1991) and (Groomer & Murthy, 1989).

The adoption of Continuous Auditing methodology has been demonstrated by the implementation or prototyping of Continuous Auditing in large organizations such as AT&T Corp., Siemens, HCA Inc, Itau Unibanco, IBM, HP, MetLife and Proctor & Gamble. In addition, interest in the use of CA technology has advanced to the point where practitioners agree and collaborate with the academic research community for innovation. Management and auditors recognize that the traditional audit approach is outdated in the real-time economy and that innovative approaches in the application of audit methodology are necessary to support real-time assurance (Vasarhelyi & Chan, 2010).

1.2. Comparison of Continuous Auditing and Traditional Auditing

The retrospective and periodic structure of traditional auditing has started to be transformed into continuous and instant auditing practices together with technological developments (Khargi, 2010). Although traditional auditing is based on intensive human labor and requires costly work, Continuous Auditing is technology-based and thus brings cost advantages (Jagan, Dasaratha, & Yinghong, 2008). For this and the reasons that we have explained in detail below, we are switching from manual based auditing to technology based auditing.

When we look at similar and different points between traditional and continuous auditing (Zhao, Chang, & Yen, 2004), the most fundamental difference is the structure of traditional auditing based on document-based accounting information system whilst the structure of continuous auditing based on electronic information. In addition, the traditional audit is time-consuming and costly, so it can be performed once a year and Continuous Auditing can be performed more often. One of the similar aspects is the assurance service of both audit types. Both types of audits are performed on the basis of basic financial statements and generally accepted accounting principles.

Similar and different aspects between traditional and continuous audit are summarized in Table 2.

Table 2: Comparison of Traditional and Continuous Auditing Approaches

Criteria	Traditional Auditing	Continuous Auditing
Occasion	To increase the reliability of the financial statements presented by management	Improve data quality Create meta / control structure
Audit Tools	Manual semi-automatic tools	System-integrated digital tools
Data Review	Sampling method	Examination of all data
Audit Automation	None	Continuous monitoring and instant response
Similarities	Independent professional certification services Use of generally accepted accounting principles as criteria	Independent professional certification services Use of generally accepted accounting principles as criteria
Differences	Use of document-based accounting information systems Report once a year	Use of technology in accounting information systems Instant reports on demand
Limitations	Lack of technological adaptation Only periodic inspection reports	Obvious technical barriers Lack of standards and guidance
Benefits	Techniques and standards usage history	Real-time financial information increase Timely audit report
Timing	Annual and / or quarterly	Daily, weekly, monthly etc.
Audit Subject	Financial information	Financial and non-financial information

Source: (Kıymetli Şen, 2016)

2. DIFFERENCES BETWEEN CONTINUOUS AUDITING AND CONTINUOUS MONITORING

Although there are similarities between CA and CM, there are points at where these two concepts differ. It is important to understand exactly what CA and CM mean, the relationship between them and the points at where they differ.

CA and CM can be applied independently of each other. However, the implementation of Continuous Auditing is influenced by the scope of management's monitoring function (Coderre D. , 2008). In cases where the continuous monitoring function is not fulfilled, the auditors need to exert more effort in applying Continuous Auditing techniques. In cases where management performs CM in a comprehensive manner, internal audit activity no longer has to perform the same detailed techniques as will be applied to the CA (Tank, 2011).

The three main differences between continuous auditing and continuous monitoring can be summarized as follows:

1. The first difference is related to who participates in the activity. Control is an independent function. The auditor reports to the company's board of directors to identify opportunities for improvement. Continuous monitoring is managed only by the company or organization. Managers are responsible for implementing the monitoring process,

providing the information they expect, and using it to remedy any inefficiencies and weaknesses that may be observed at any time. Responsibility is the first significant difference between continuous monitoring and continuous monitoring.

2. The second difference stems from the continuous structure of these concepts. Continuous Auditing is essentially an audit activity, but it is performed more frequently and regularly than standard audit. Technology is the most important element in continuous analysis of data. The auditor should analyze the data, report it, and perform the necessary tests. Continuous monitoring is faster and more direct, producing reports almost every day, and in some cases every hour.
3. The third difference is related to the action taken in case of any anomaly in the data. In case of any anomaly during the continuous monitoring process, management tends to solve this problem. However, with Continuous Auditing, the auditor decides whether or not the abnormal situation that arises should be examined in more detail using professional judgment.

The main difference between continuous auditing and continuous monitoring is summarized in the table below.

Table 3: Difference between continuous auditing and continuous monitoring

Continuous Auditing	**Continuous Monitoring**
Executed by by Internal Audit	Executed by management
Ensures more effective and efficient audit evidence and adaptation	Adapts business risks to internal controls and improvements with positive impacts on governance
Enables full-time response to business risks	Increases transparency and contributes to more timely response to better day-to-day decisions
It utilizes technology to increase efficiency in internal auditing.	Reduces control costs and test / monitoring costs
Focuses on specific areas of control.	Leverages technology for performance improvements and efficiency
Supports monitoring compliance with policies, procedures and regulations	

Source: https://www.pbcglobal.com/pbc-blog/2016/4/15/continuous-auditing-vs-continuous-monitoring

3. BENEFITS OF CONTINUOUS AUDITING AND MONITORING

The benefits of Continuous Auditing can be listed as follows (Hazar, 2013):

a) It increases the effectiveness of audit activities

b) Engaging in activities that provide added value

c) Real-time views

d) Extention of audit scope

e) It increases the reliability of the audit

f) It increases transparency

g) To be able to act independently from the IT department

h) Developing the audit plan

i) It supports special auditing

j) Reduce the cost of the audit

k) Reducing audit waste: Continuous Auditing practices greatly reduce audit waste. There are seven different types of audit waste:

- Over-auditing: Auditing far beyond the risk and materiality assessment enforces increases audit time and costs.
- Waiting: It is a waste of time for auditors to wait for the data to be audited.
- Delays
- Audit process: There may be inactive areas in the process from planning to reporting.
- Working period: Stopping and restarting the audit is a common problem in the audit process.

• Review: Review is a quality control element. Continuous Auditing can shorten its time.

• Errors: No matter how much attention is paid during the inspection, errors can be made. Efforts will be taken to correct these errors.

l) To make standard reporting

m) To ensure the follow-up of audit results

n) Combining skills in different fields

o) To communicate effectively with external auditors

p) Increasing company value

Furthermore, Continuous Monitoring is an automated and ongoing process that enables management to (www.acl.com):

- Evaluate the effectiveness of controls and identifying relevant risk issues
- Improve business processes and activities adhering to ethical and compliance standards
- Full-time decision-making on quantitative and qualitative risk
- Increase the cost effectiveness of controls and monitoring with information technology solutions

Continuous Auditing is a process that supports internal audit in the following areas:

- Enables data from processes, transactions and accounting data to support internal and external audit activities
- Enables more timely and cost-effective compliance with policies, procedures and regulations

- Switch from limited focus to continuous, wider and more proactive reviews
- Change from a traditional, static annual audit plan to a more dynamic plan
- Reduces audit costs by increasing efficiency with information technology solutions.

4. CONTINUOUS AUDITING MODELS AND APPROACHES

There are numerous theoretical models and approaches for Continuous Auditing. The three most well-known approaches are described in detail below.

4.1 Rezaee Elam and Sharbatoghile Model

Rezaee, Elam and Sharbatoghile described Continuous Auditing in five stages in their work in 2001 (Rezaee , Elam , & Sharbatoghlie, 2001):

1. Planning the audit including analysis

2. Evaluation of the internal control structure of the real-time accounting system, including tests of the performance of the controls and assessment of the risks of the controls

3. Performing tests on the details of transactions

4. Performing year-end tests and analysis on account totals and general results

5. completion of the audit and publication of the audit report

Rezaee et al. One of the most important elements of the model developed is the existence and effectiveness of the concurrent accounting system. In this way, the auditor will be able to intervene in the system at every stage of the accounting process and perform simultaneous audits. According to the model, the simultaneous financial reports and the audit report can be published simultaneously (Flowerday, Blundell, & Von Solms, 2006).

4.2 Woodroof & Searcry Model

One of the models and approaches used in the context of Continuous Auditing is the Woodroof & Searcry Model. According to this model, Continuous Auditing consists of six components. The first of these components are interconnected web servers in the form of customers, auditors, third parties and evaluation sites. In this way, communication, which is one of the most basic requirements of Continuous Auditing, can be provided. These web servers should be workstations with restrictions for their users. The second component is the Continuous Auditing environment. In this environment, the data flowing through the system of the customer enterprise is continuously monitored and analyzed. In case of any abnormality, warning systems are informed and intervention is allowed. Thus, continuous assurance can be provided. The third component is a Continuous Auditing agreement between the parties involved in the system. While the customer and the auditor are considered to be the primary party from these parties, suppliers, etc., from which the information that may be needed during the audit can be obtained. It is called the tertiary party.

The contract should include technical issues as well as the requirements of traditional audit contracts. As the fourth component, the characteristics of a reliable system are indicated. The reliability of interconnected systems is a sine qua non of Continuous Auditing. The transfer of information between the parties must be authorized and should include confidentiality, integrity and authentication. The last component is continuously valid reports. These reports are audited and can be accessed by the users at any time on the web within the framework of a Continuous Auditing environment and reports (Woodroof & Searcy , 2001).

This model is applied in five stages (Uyar & Şahin, 2018):

1. The preparation of a report is requested.
2. Compliance with the predetermined rules of operations in the user database is monitored by the software installed in the system. Transactions that do not comply with specified rules are reported to the auditor as unusual transactions. The rules relate to system reliability, the accuracy of financial reports, and compliance with agreements with third parties.
3. The auditor's system requests real-time account balances from the user's database.
4. The compliance of the incoming balance with the agreements regulating the debt and credit relationship with third parties and the similarity of the transactions to the standard transactions are checked. The auditors are notified of the anomalies.

5. Real-time report is generated. These reports provide assurance in three areas. The first is reliability assurance, no more detailed analysis is required. The second is to provide an opinion on the accuracy of the real-time financial statements. The third is an analysis of whether the agreements with third parties have been violated. Reports are not available for XBRL-based reporting because they are generated instantaneously.

4.3 Onions Model

In an article he wrote in 2003, Onions commented on how to implement a fully automated real-time audit approach with the current software and hardware (Onions, 2003).

According to Onions' model, data analysis should be conducted in three areas for effective and comprehensive audit:

- Keystroke level
- Transaction level
- Transaction pattern level

This model consists of four stages. In the first stage, data and operations are entered from different sources and data entry points. In the second stage, all transactions and inputs are simultaneously directed to the relevant sections and data is collected daily. In the third stage, the transactions and inputs from the previous stage are collected by simultaneous computer aided control tools and techniques. At this stage, the warning systems and warnings are transmitted to the control system center simultaneously. These alerts are transmitted by secure

VPN (secure virtual network) marked in three different levels according to their importance. In the fourth and final stage, expert systems collect evidence from stored processes within the framework of predetermined criteria and evaluate the collected evidence.

5. CONTINUOUS AUDITING IMPLEMENTATION PROCESS AND OBSTACLES TO IMPLEMENTATION

Three main problems arise when organizations accept Continuous Auditing.

The first is the confusion of meaning between CA and CM. Continuous monitoring helps management to ensure the effectiveness of operational policies, procedures and activities and to assess the effectiveness of internal control. In addition, continuous monitoring involves automatic testing of system activities in a given process against control rules, and how often it is performed depends on the operating cycle.

On the other hand, Continuous Auditing is a continuity-based automated risk assessment and an automated version of the controls. Information technologies play an important role in defining exceptions, analyzing numerical models, observing trends and testing controls. Although many continuous monitoring techniques are similar to Continuous Auditing techniques, Continuous Auditing is more effective in assessing the auditor's deficiencies in management's monitoring function and risk areas.

The second problem is the understanding of the role of Continuous Auditing as a meta control. Continuous Auditing is

dynamic in nature. Thus, continuous monitoring through monitoring of specific configurable tools provides extra control through a control-over approach.

The third problem is that the implementation of Continuous Auditing causes the auditor to lose his independence and not be able to maintain his objectivity. Since Continuous Auditing differs from the traditional auditing approach in which the auditor is central, auditing principles should be conceptualized before Continuous Auditing is performed.

Once the problems that arise during the initial phase can be identified and managed, organizations will be ready for the implementation of the audit program. Implementation of Continuous Auditing involves a seven-stage process (Shilts, 2017).

1. Identification of Priority Areas

The choice of which organizational areas to audit should be integrated as part of the internal audit annual plan and the company's risk management program. Many internal audit departments should also be integrated and coordinated with other compliance plans and activities, if any. Generally, when deciding priority areas for Continuous Auditing, internal auditors and managers:

- Identify critical business processes that need to be audited by separating and rating risk areas.
- Understand the availability of Continuous Auditing data for these risk areas.

- Evaluate the costs and benefits of implementing a Continuous Auditing process for a particular risk area.
-Consider the institutional consequences of continuous monitoring of a particular area or function.
-Choose early applications for auditing, as it is of great importance to the business to display results quickly.
- Once a demonstration project has been successfully completed, discuss with different auditors and internal audit areas as needed to implement a longer-term implementation plan.

When performing the actions listed above, auditors should consider the main objectives of each audit procedure. Objectives can be classified into one of four types: investigator, deterrent, financial and compliance. A custom audit priority area can meet any of these four objectives.

2. Determination of audit rules

Once a business process has been selected, the auditor should determine the audit rules that will guide the Continuous Auditing activity. The auditor acquires sufficient knowledge of business objectives, its correlation with organizational objectives, key risks and key controls to understand and document the high-level perspective. For this purpose;

- Other activity integration: using information from traditional audit processes and the first and second line of defense within the organization; and

- Process and system review: Review of business processes and review of common priority areas established in the sector

Using the above two procedures, the auditor achieves the objective of effective audit coverage. The output of the initial process review is the determination of audit rules to test the extent of risks and controls related to business or process objectives using analytical or computer-assisted audit techniques (CAATs).

3. Deciding the frequency of processes

Attention should be paid to the cost, risk, benefit and compliance of the recommended frequency of the audit process. The nature of some Continuous Auditing objectives, such as deterrence or prevention, can also determine frequency and diversity. After 1 year, this step will be further enhanced as internal audit becomes more familiar with Continuous Auditing capabilities and information generated from the function. Many basic analytics or CAATs used come at a recommended frequency.

4. Configuring and executing parameters

Technological support is required to improve operational performance and business excellence. Test scripts are developed and written using control rules and process information created in the second and third steps. Simultaneously, the rules must be structured before the Continuous Auditing procedure is implemented.

Internal audit will implement different types of analytical tests to conduct Continuous Auditings:

- Data analysis. Using tools such as Excel, the internal audit can develop spreadsheets to assist in the analysis and processing of data.
- Rates or trends. Using management reports such as financial statements, internal audit gathers and evaluates information to identify deviations from established rates or unusual models in management information by reviewing trend information to determine the prevalence of a risk or the effectiveness of controls.
- First and second line tracking. The collection and monitoring of other internal reports is another important focus of a Continuous Auditing program. Internal audit collects and analyzes this data and, where appropriate, includes them as a part of higher analysis.

It is mandatory to present and conclude the internal audit information and its findings in a concise manner.

5. Managing and monitoring results

Managing and monitoring results requires the best use of surveillance resources to ensure that the transmitted message is appropriate and accurate. More importantly, Continuous Auditing outputs are reviewed according to internal and external measures to determine the impact of findings and subsequent steps.

In addition to a quantitative review and evaluation, an important part of managing and monitoring results is identifying and using appropriate tools and management techniques to ensure that

information, scripts, and other relevant resources and information are properly stored.

Various tools can be gathered from external sources. However, internal audit departments should focus on storage and data analysis tools that enable the analysis of various forms and data sets; enables the efficient organization of system reviews and findings and allows the ability to customize and expand reports as the ongoing audit program evolves.

6. Reporting of Results

As a result of each Continuous Auditing activity, the results should be presented to management in a timely and consistent and formal report and a report with insight into the risks, controls and results associated with the findings. Reports are generated at various times throughout the year, as some activities are processed privately, not according to a specific schedule.

7. Assessment and recording of emerging risks

The results are included in the internal audit's risk identification and assessment process, which may assist in resource allocation. The process then repeats or continues the same steps, adding more complex elements.

In addition to the conditions mentioned above, the application conditions of the Continuous Auditing can be listed as (Orhan, Serçemeli, & Ağırman, 2013):

- Persons and / or institutions involved in the Continuous Auditing system should be prepared to adapt to the Continuous Auditing trend.
- Technology should be well understood and controlled by the auditor to ensure the expected benefit from Continuous Auditing.
- Audit plan and objectives should be determined.
- Audit database architecture should be established.
- Information security must be ensured.
- Business processes, risk and control points to be audited should be identified.
- An effective and sufficient internal control system should be in place for the real-time accounting system.
- Reliable systems should be used in the audit.
- The entity's internal control system must adapt to existing and advancing technology.
- There should be highly automated audit procedures to provide audit evidence.
- The required technological solutions, software and hardware needs should be determined and provided.
- There must be reliable tools for the simultaneous realization of the audit process.
- Audit reports should be obtained in real time and control should be provided.

- The necessary audit team should be gathered and their competencies appropriate to the innovations in technology should be supported.

Implementation of the Continuous Auditing requires leadership, change management and a staged approach that initially addresses the most critical business systems. Although each institution has its own unique functioning, there are some common activities that need to be carefully planned and managed while Continuous Auditing is being developed and supported. Key steps for placing Continuous Auditing is illustrated in Table 4.

Table 4: Key steps for placing Continuous Auditing

<table>
<tr><td colspan="2">1. CREATE A CONTINUOUS AUDITING STRATEGY
- Collaborate with the first and second line of defense
- Set priorities and gain management support
- Align annual audit plan to identify ongoing indicators</td></tr>
<tr><td colspan="2">2. OBTAIN DATA FOR ROUTINE USE
- Ensure routine access to the production environment
- Improve analysis capabilities
- Build technical knowledge and skills related to audit
- Assess the reliability of data sources
- Prepare and verify data</td></tr>
<tr><td colspan="2">3. BUILD CONTINUOUS AUDITING INDICATORS</td></tr>
<tr><td>CONTINUOUS RISK ASSESSMENT
- Develop risk indicators
- Design analyzes to measure increased risk levels</td><td>CONTROL EVALUATION
- Connect with control targets
- Identify key controls
- Evaluate changes in baseline condition and controls</td></tr>
<tr><td colspan="2">4. REPORTING AND MANAGEMENT OF RESULTS
- Create a repeatable methodology
- Report results
- Simplify management activity
- Adapt to continuous monitoring and adapt the Continuous Auditing strategy to this</td></tr>
</table>

Source:https://www.tide.org.tr/uploads/GTAG-3_Continuous-Auditing-SON.pdf

6. RESULT

The integrated Continuous Auditing enables auditors to identify and eliminate weaknesses. In order to carry out continuous or actual-time audit, actual-time reporting is required. The use of Continuous Auditing methods allows the auditor to obtain information and ideas about the problems through the use of alarm systems that monitor and analyze the audited accounting system.

One of the most important building blocks of Continuous Auditing is the security of information technologies and data. The data and modules on the system must be encrypted, the rights of the users of the information should be determined and authority of the users should be restricted in the part of the user concerned. In addition, the log records on the system should be continuously monitored in order to determine which operations are performed by which user.

Significant transparency is ensured as a result of Continuous Auditing and implementation in enterprises. An effective internal audit system is established with high information technology tools and programs to be used. In addition, thanks to the creation of a powerful automation system, in order to compete with other enterprises within the industry, Continuous Auditing provides important advantages to the enterprises.

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CHAPTER 2:

EVALUATION OF SOCIAL RELATIONS IN PRISON ENVIRONMENT: THE CASE OF GET THE GRINGO FILM

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INTRODUCTION

In the shaping of the environmental identity, the meaning placed on the place by the individuals is vital, and it gains importance and becomes essential with the effect of this place on the human (Güleç Solak ve Oktay, 2017). Cinemas are one of the environments that try to express space and human relations in the best way and can achieve this. Cinema is concerned about the structure, culture, expectations, and objectives of societies and tries to convey the characteristics of the community to the audience. Sometimes, cinema tries to predict the future of society, makes predictions and in-depth analysis of the subject it deals with (Baloğlu, 2018).

Prison life is one of the most attractive subjects in cinema — many of the impressions about the prison stem from the films (Gün, 2016). Although the basic concepts and relationships that society attaches importance to, such as mother, father, child, and family, it appears as the subject of psychology, it is one of the main issues of cinema since the first years (Baloglu, 2018).

In this sense, the film Get the Gringo, which was released in 2012, has become one of the most exciting films around the prison. The film tells the story of a prisoner who was captured at the Mexican border.

When the film is examined in depth, it is seen how the child character shapes the film's result. This situation, which is felt in a way that increases the effect of the film from the beginning to the end, is quite different from the classic prison movies. In this respect, the study evaluates how childhood shapes prison space and social

relations through the Get the Gringo film. First of all, the concept of prison will be analyzed and then how the situation is shaped by the child effect and the evolution of expectations and targets will be analyzed.

THE CONCEPT OF PRISON FROM PAST TO PRESENT

The prison means to detain a person, a creature or an item, to shut it down, not to take it out, to restrict a person's behavior at home or elsewhere (Orat, 2011; Gönüllü, 2011). The prison was a place where the perpetrator was held until the punishment was determined or executed, rather than a place holder to punish the criminal in ancient civilizations (Uyanık, 2017).

There is no specific information about the exact occurrence of prisons in ancient civilizations (Kurtulgan, 2016). The prison or dungeon existed in the eastern civilization before western civilization (Uyanık, 2017). Prisons in western culture were the dungeons which were formerly a dark space without any window, gates, and no ventilation. In the eastern culture, the prison areas were in the first period, the cellars, wells, and dungeons without any windows or any doors (Uyanık, 2017). In ancient Greece, unused mines or quarries were used as prisons. The most famous prison of the Greeks is the Esilis prison, where the famous philosopher Socrates was imprisoned (Uyanık, 2017).

In pre-Islamic societies, it is understood that the rulers detained and imprisoned criminals to maintain their existence, putting the oppressed under pressure and protecting the interests of the society. In

the nomadic societies, the isolation of the guilty person from the society was seen as a sanction equivalent to the prison sentence (Yılmaz, 2001). For instance, the Romans employed prisoners in private and closed workplaces in the form of an open prison. Also, they used the basement of the fortresses for punishment (Akyüz Orat, 2011). Afterward, the concepts of crime and punishment have begun to be seriously discussed within the structure of medieval society evolving towards the industrial society with the French Revolution. The penal system, which was not suitable for increased crime, has been decisive in the way of making significant reforms in this field (Özden, 2012).

We see that in the western countries, especially Italy and the Netherlands, only the prisons were established in the 16th century (Yılmaz, 2001). The prison was first established in northern Europe as a restraining sanction. The first prison was established in London in 1555 (Uyanık, 2017). Other European cities were Amsterdam (1595), Copenhagen (1605), Bremen (1608), Antwerp (1613), Lyon (1622), Madrid (1622) and Stockholm (1624) .5 Besides, America first met prison in 1773 (Yıldız, 2015).

Within the framework of today's understanding, the first prison was made for men in Amsterdam in 1595. These institutions have been arranged to combat begging and vagrancy (Orat, 2011). In Amsterdam prison, 150 male prisoners were staying in small wards, dealing with wood and yarn during the day and also receiving religious education (Artuk and Alşahin, 2015). Then, prisons became more regular in the years 1780-1865 and took a more natural form in

Europe. On the other hand, state prisons in America began to spread in the first half of the 19th century (Yıldız, 2015).

In the Ottoman Empire, in addition to fines for the punishment of minor and moderate crimes, imprisonment was used to a great extent. For instance, in the 16th century, the rowing penalty was applied to a certain extent. It can be said that these penalties are a kind of prison-exile mixture (Gönüllü, 2011). The first prison buildings have been made with the renovation of some buildings reserved for different jobs (Uyanık, 2017).

It is possible to evaluate the history of penal execution in three periods considering the types of sanctions applied. In the first period that coincided with the early periods of the Middle Ages, penance and fines were imposed as the only means of punishment. At the end of the middle age, which could be considered as the second period, monstrous sanctions and life sentences were imposed on the body. In the 17th century, the third term, the punishment of liberty was imposed in respect of the crime. (Artuk and Alşahin, 2015).

With the start of international reform movements in the second half of the 20th century, standard rules have been established in the field of modern execution practices (Uyanık, 2017). In this sense, a design approach that allows detainees to meet the needs of more personal space, to be under direct and continuous supervision, but also to make direct contact with both the convicts and the guards, starts to stand out with the second half of the 20th century (Özden, 2012).

Prisons which became a regular functioning institution in Europe between 1780-1865 appear with Tanzimat reforms and the

criminal laws introduced in the second half of the 19th century in the Ottoman Empire (Yıldız, 2015).

Prison sentences and the birth of prisons are integrated. In this context, penitentiary systems are Community (Amsterdam) System, Cell (Pennsylvania) System, Hybrid (Auburn) System, Panopticon System, Graded System (Ireland) and New System. Today, imprisonment is not a measure to exclude the individual from the society, but rather as a method of investigating the most appropriate means to ensure the convicts' recovery and training and return to the community (Artuk and Alşahin, 2015).

Today, prisons are divided into such categories as women, male prisons, juvenile prisons, closed, open, semi-open prisons, education prisons, distribution prisons (Uyanık, 2017).

There were 486 prisons in 1948, 633 in 1968, and 226 of which was built in the Republican period in Turkey. Since the 1970s, penal buildings have been transformed into jails. Together with the 1970s, there are severe differences in the architecture of the prison, laws, and discourses. The transformation of prisons has been through these three areas. According to the data of the Ministry of Justice Prisons General Directorate at the date 28.03.2019, there are 313 closed prisons, including 75 individual open prisons, five children education, nine women off, eight female open, and seven children closed jail in Turkey. There are a total of 396 penitentiary institutions with a capacity of 220.008 persons. The number of prisons and the number of detention centers should be reduced, and the quality of service and modern execution should be reduced rapidly. For this

purpose, a total of 214 district penitentiary institutions that did not comply with international norms, education, and improvement in terms of their physical conditions and capacities were made limited were closed from 2006 to 2018 **(**http://www.cte.adalet.gov.tr/).

THE STORY OF THE MOVIE

When a criminal (the Gringo-Mel Gibson) tries to cross the American border, he is caught by the Mexican police and is thrown into El Pueblito jail. Police capture the money stolen. To survive, The Gringo first tries to understand the life of the prison. He decides that it is right to move by planning the work he intends to do. When he sees the prison differs from the other prisons the Gringo begins to steal. He realizes that a child is following him when he thinks he is successful in doing this. After encountering the child, the course of the film changes and the child comes to the center of the film. After that, he collaborates with the child to learn how to do things in prison (Figure 1).

Figure 1. The Gringo chatting with the boy.

In the film, the Gringo learns from the child and his mother that the father of the child was killed for Evan Javi's liver and that the child will be executed in due course for the same reason. After that, the rescue of the child is now a priority for Gringo.

For instance, he kills one of the Javi's men and saves the other. Javi finds out the man is dead. The deceased is Javi's cousin, and this is a family matter. Javi goes to the Gringo for revenge. The Gringo is ready for this situation. When they meet, the Gringo says that he saved Javi's life by killing his cousin. If the Gringo had not killed him his cousin would have killed the boy and that the liver would be gone. Javi then asks his men to find out who the Gringo is, then tells he is going to kill him. The Gringo is smart and gets closer to Javi after this. He starts to treat Javi as one of his men, but his main goal is to save the child.

Figure 2. Soldiers preparing to raid.

In the following times, it is heard that the state, who knows the prison's problematic management style, has decided to intervene in detention by raiding it. Shortly after, the military operation begins in prison (Figure 2). After this stage, Javi thinks that he cannot have any other opportunity and moves for liver transplantation. Meanwhile, the Gringo acts to save the child. Before he reaches the child, he sees the 1.7 million dollars he has stolen but prefers the child to the money. During the raid on the prison, while liver transplantation takes place, the Gringo comes and saves the child's life by obstructing transplantation. The strike is completed successfully. Then, the Gringo returns to his car after escaping from jail and finds the rest of the money in his hiding place. The Gringo manages to escape from prison. The film ends while he is on holiday at a beach with the child and his mother.

DISCUSSION

The imprisonment is a binding punishment for the guilty for some time and thus the protection of society (Kurtulgan, 2016). It also aims to show that the prison sentence does not go unpunished, to prevent others from committing the crime, to bring the guilty back to society and to improve the personality (Atar, 2011). In addition to the development of the prison concept from the past to the present, the film Get the Gringo makes a critical approach and a different model proposal in terms of the way it handles the subject and the fiction of the story.

When the Gringo steps into the prison, we can able to get some idea of the prison's environment. In the film, what the judiciary thinks about the view of foreigners is not fully understood. It is not clear and understandable whether the Gringo entered the prison after a trial.

From the entrance, there is a prison with its own rules, apart from the other prisons. The Gringo's prison life begins with the same music that continually plays. In the first place, the prison manager comes, and the music suddenly stops. The manager makes a speech for newcomers. He says that the prison will be a home and employees will be a family for them for a while. However, he advises that this place is still a prison. He asks them not to cause any problems. He says that he wants the prison is a small town, but not a big hell. The Gringo is surprised when he sees the guards collecting the guns. He thinks that it is a new situation. He indicates that he has a lot to learn about prison.

Prison rules began to manifest. Criminals want the shoes of newcomers. Newcomers struggle, but they cannot succeed. They are forced to give their shoes. These events show a situation that cannot be seen in prisons in everyday life.

Figure 3. The Gringo plans to steal.

The Gringo crosses the general population section under the auspices of security guards. As soon as he enters, he sees a busy security system and a crowd walking around. The Gringo states that he has lived in a common area, but this is quite different. The Gringo notes that the environment is more like a shopping mall with barbarians than prison. There seem to be people walking around, taking a shower and wandering around. On the contrary, there is chaos and disorder. He meets a very crowded prison with no authentic atmosphere (Figure 3).

Unlike the usual prisons, there are no outdoor courtyards in this prison. The prison environment does not give the appearance of a prison like a conventional prison, but more like suburban neighborhoods. For instance, there is a public toilet. As a result of all this, the Gringo begins to think that someone other than the legal prison management runs this place.

Besides, there are children in prison except for adult men and women. These children can even go to school. In general, there are no cases of violence or sexual harassment against children or adults. It is thought that particular attention was paid to that at the scenario.

The prison rulers live on the prisoners and provide order. Many illegal activities take place in this prison. There are also vendors who supply and sell opiates. People line up to buy heroin. The film criticizes the system by giving important ideas about sleep. A complete capitalist system is dominant in prison — many people without money sleep outside when it is time to sleep. People with money may have privileges such as beds, television, and towels. The Gringo asks one of the Evan Javi's men to set up an area to stay. He states that he does not want a special place. The guy shows a position separated by a curtain. The guy says there is a shared bathroom outside, and that if the Gringo wants a television, he can arrange it, and that towels, fans, and blankets are included in the price. The Gringo says that the place is perfect.

Figure 4. Recycling area in the prison.

There is a recycling area in prison, which can be considered a dump site (Figure 4). There are children among people who work here. They collect materials that can be reused from among the garbage. In this section, employees are provided with lunch.

The prison also has a gambling area. In the prison where capitalism prevails, of course, everyone cannot enter this area. The meeting day of imprisonment is Sunday. Contrary to what is known, in this prison, there are no longer families who can talk to each other in a hall, but families who can meet in any way they want and in the closest approach. After the passage of security, the criminals met with their families (Figure 5). In this security pass, the person who gives the money can kill someone inside and goes out. There are many things like tent rental, carousel, pinball and so on for families in the meeting area.

Figure 5. A view from the courtyard at the meeting day.

While the time passes in prison, Evan Javi organizes sports matches in prison and points out that the money collected will address the crowd and disperse to the needy. At the same time, Javi speaks in a close and intimate relationship with the prison manager.

As in every film, the protagonist of the film is also exposed to mistreatment. Malpractices are carried out by officials and prisoners. These treatments are manifested as physical and psychological violence by Javi and his men to public officials, as well as the prisoners. The executive power which is Javi's and his men's meets all the needs of both prisoners and officials, both good and bad. The prison director is a sort of guardian of this destructive power and has different gains from it. During the film, the Gringo carries his works by considering this power.

Even though it is not a separate venue in prison, the presence of a worshiped part is shown in the film in a faint way. This worship has a different form of worship than known religions. The child comes here and makes some movements similar to worship (Figure 6).

Figure 6. The shrine area in prison.

From the beginning of the film, there is one consular officer taking attention. This officer receives information on the situation of American citizens in prison in Mexico. This officer also abuses his position and tries to benefit from the situation he encounters. He tries to learn the situation from the Gringo and why he is in prison. His main goal, however, is to take the money the Gringo stolen.

Although the prison officials have not been given much space in the film, apart from the director of the prison, it is understood that these officials serve Javi. In the unlawful work in prison, there are several officials together with the principal (Figure 7). The others do not remove their voices due to their interests and even support them.

Figure 7. Prisoners and the officers gambling together.

Despite all this, it is understood that the state is aware of what is going on in prison and that it has intervened in the prison by making a massive operation for solving the problem and finding control again.

An essential aspect of the movie is the fact that the childhood character is the subject of the film in the context of health conditions. The film handles a situation that would not be in a standard prison that Javi needs a child to get rid of his illness. There is management that believes that the life of an innocent child must be sacrificed as a remedy for the disease of a prisoner. However, some people do not have power against this administration but who believe that they will be free from this situation. The violent struggle between these people and the administration is profoundly handled in the story of the film. The struggles of a fugitive to get out of the prison is thrown into the next plan when the subject is the child's life, and survival of the child's life gains primary importance. Accordingly, the film reveals that even in the most violent environments, innocent characters like children have the power to change the structure, priorities, customs, morals, and expectations of people and society.

CONCLUSION

Prison is the place that has been created to bring people who are involved in crime back to a level where they can return to the life of society. States that have imposed the penalties of criminals with physical sanctions in the past have resorted to different methods in jail sentences in the context of adaptation to society as time passed and then prisons have emerged. Since the emergence of the prisons, it has not been reached a consensus on whether they can provide enough to adapt the criminals to society. In this sense, various criticisms have been made about prisons. For instance, one of the most important

representatives of the critical view of prisons is cinema. The cinema has discussed the prison phenomenon in depth with the physical conditions of prisons, including works related to almost all parties such as discipline, business, health, nutrition, the evil of characters.

It is possible to get ideas from the cinemas about the works that the central and local governments can make for the future. In this sense, cinemas can be a kind of router. The cinema, which enables the realization of events that cannot be possible under current conditions, can also reveal the future facts and preferences. In this regard, many conclusions can be drawn from the Get the Gringo film in terms of evaluating the current conditions.

It can be said that Get the Gringo has managed to be one of the films that address prison life, space and children. Film criticizes phenomenon of prison with respect to physical conditions, prison characters, management, the state's view and so on. The film tries to show that prisons can evolve in a very different direction in the future. On the other hand, it is presented to the audience that the child and family factor can play a very important role no matter how prison planning evolves. In conclusion, it can be stated that cinema is an environment which gives very important ideas and shows different situations in terms of better understanding of future life conditions.

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CHAPTER 3:

TELEVISION WATCHING HABITS IN USA IN THE REFERENCE OF USES AND GRATIFICACATIOS THEORY

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INTRODUCTION

Almost all individuals in the United States have watched TV shows. It is apparent that TV sets have become common household items in the American homes since its invention in the early 1900s. Its popularity has made this technology one of the mediums for sharing information and influencing people. It has also become one of the major conduits to advertise commercial products. From a business perspective, the major product of the TV industry and other media industries in general, are the people or the audiences. TV shows should be able to entice as much of its target audiences so that advertisers, which is the industry's real customers from which it derives its profits, would pay to advertise.

Thus, TV shows or programs should understand how to attract their target audiences. In other words, there is a need to understand the decision making process followed by TV viewers in deciding which TV shows they would select to watch. There are diverse theories that can be used in understanding TV audiences' behaviors; one of the most popularly used ones is called the Uses and Gratification Theory. With the ever increasing number of TV shows, there is a fiercer competition among businessmen engaged in this industry. On the psychological, political, and sociological side, the TV industry has been instrumental in affecting the state of mind, political views, and social cohesiveness of nations around the world. Thus, there is need to gain a more comprehensive understanding of the different motivations that influence the decision making process of individuals in selecting the TV shows that they watch.

In line with this need, this study aims to gather information from the later years of the 1900s up to the present time, about the different motivations of individuals for watching TV shows. This aim is divided into the following detailed objectives:

⇒ Determine the variations as well as the similarities between the motivations of the Americans who are living in the US from the late 1900s up to the present;

⇒ Conduct an analysis of these motivations using the Uses and Gratification Theory;

⇒ Determine the effects of new ICTs to TV viewing motivations of audiences;

⇒ Suggest possible initiatives that would make TV viewing more productive or meaningful for individuals; and

⇒ Suggest direction for future studies on TV viewing.

THE HISTORY OF TV

The invention of TV was made possible through the invention of different technologies and discoveries about the nature of the elements. Some of the most notable inventions include the invention of the cathode ray tube, the discovery that electrons can be deflected by magnets, and that certain elements emit different kinds of colored light when hit be a beam of electrons with sufficient energy. It was John Logie Biard who invented television in the early 1920s, but it only gained recognition in 1925, and the complete TV apparatus was made in 1926. Overtime, the TV that Biard invented was improved by

different scientists some improvements include the speed of image production, robustness of design, and color (Peters, 2000).

The market of modern TVs eventually increased as almost all westerners wanted to buy this new product. In the United States (US), virtually all children have television sets at their homes. TV's market reached an unprecedented size in the later years of the 20th century (National Library of Medicine, 2019).

The number of television units produced in the west even surpassed that of the telephone. TV has indeed become a common household item in the 19th century due to its ability to transmit information, particularly films and TV shows; as such, TV viewing habits and preferences have been the subject of interest for diverse scientific studies that determine the viewing behaviors of TV audiences (National Library of Medicine, 2019). These studies have paved way for diverse theories; one of the latter ones is the Uses and Gratifications Theory (Weiyan, 2015).

It should be further noted that even though TV strictly pertained to the technology which was previously discussed, its meaning has changed over time. Throughout television history, the definition or conception of TV has been associated with the screen or the device, the medium of broadcast, the channel that delivers the scheduled output, the form & format of the programs, the function of public service, the business models of pay & commercial television, and the regulation systems by which it operates (Cooper, 2015).

Steiner and Xu (2018) have explained in their study that the new meanings have focused more on TV content. Thus, shows, programs, or films that have been originally shown in series in TV, that have been shown in other media technologies such the World Wide Web, downloaded in mobile devises, and those shown through cable services, have all been coined in the word TV. It is due to this definition that binge watching is considered a form of TV watching in the 21st century.

HISTORY OF USES AND GRATIFICACATIOS THEORY

The origins of the Uses and Gratifications Theory can be traced back in the early 20th A group of studies conducted by mass communication experts, sociologists, and psychologists called the Payne Funded Studies were done century in the 1920s. These studies aim at arriving at a better understanding of how movie viewing affects the American youth (Weiyan, 2015). In the 1940s, a researcher named Herta Hertzog interviewed TV soap opera viewers. From her interviews, she was able to deduce that TV audiences seek three types of gratification when watching the said genre.

These three types of gratification include learning, wishful thinking, and emotional gratification (Learning Theories, 2019). In the 1950s, another researcher named Wilbur Schramm was able to derive a formula to predict which TV-shows certain individuals will select. The formula included gratification variables (Weiyan, 2015).

In 1969 Jay Blumler and Denis McQuail established the ground for this theory when they categorized audiences based on their motivations for watching political media programs in the United

Kingdom. This manner of categorizing audiences paved way to idea that audiences have the power to seek the type of media and media programs that they want. The categorization also paved way for the development of a process of determining how audiences would use different TV shows.

Basically, the key assumption of the Uses and Gratification Theory is that individuals can deliberately seek media based on their need to fulfill certain goals and needs, which could include socialization, relaxation, entertainment, etc. (McQuail, 1994; Weiyan, 2015). Blumber was even able to determine three main social origins of gratifications derived from the media. These origins include normative influences, audience's reaction to the social situation, and social changes (Weiyan, 2015).

Abraham Maslow, in the 1970s, even posited that the theory is an extension of the needs of individuals based from the Hierarchy of Needs. It should be noted that the principles governing Uses and Gratifications Theory idea were contrary to the prevailing media effect theories during the later years of the 20th century, as the majority of the said theories consider audiences as passive consumers of media. While the theory was initially used for assessing TV viewers, it was later used on other communication technologies. At present, for example, Uses and Gratification Theory is being used to assess the quality and used of tablets, smart phones, computers, and other information & communication technologies (Magsamen-Conrad et al., 2015).

RELATED ACADEMIC STUDIES and THEIR ANALYSIS

Factors that Affect Viewing Habits and Behavior

Some of the earliest studies related to TV deals with the effects of TV viewing to the behavior of individuals. Many of these studies presume that viewing television is universal, global, involves the automatic manifestation of behavior, and non-rational. The assumed non-rationality of the TV viewing has led to the strong focus of researchers on the effect of TV to human behavior. The groups of people who were in focus in such studies were the children, adolescents, and young adults because they were deemed to be more vulnerable the negative effects of TV viewing (National Library of Medicine, 2019).

Interestingly, the intensifying competition among TV shows brought into existence a new genre of TV studies that focus on the audiences' decision-making process in selecting which TV shows to watch. Such studies revealed that the decision-making process involves a variety of factors. Such factors include the time of day, day of the month, age, sex, socio demographic attributes, occupation, educational level of attainment, economic status. There are also some factors that are collective called the "key taste considerations," which include categories such as high, middle, and low-brow rubric (National Library of Medicine, 2019, p.53).

Some studies also focused on the psychological variables that determine the audiences' decision-making process. Such variables include need for information, stimulation, need for relaxation, mood, fatigue, or feelings of loneliness. Some studies even show that aside from such variables, there are other secondary variables that play

significant roles in determining the decisions of TV viewers. Despite the different findings about the factors considered by a particular group of individuals, all such findings confirms the stipulations of the Uses and Gratification Theory, thus it continue to serve as a theoretical foundation for current studies that deals with similar topics (National Library of Medicine, 2019).

People's Motivation for Watching TV in the 20th Century

It should be noted that in the early 1900s, particularly in the '30s, there are limited choices of TV shows and very limited units of TV sets. Thus, Americans rarely watched individually, but in groups. Moreover, since there are only a limited number of shows, curiosity about the new technology is very high, that there is rarely a divergence among the reasons for watching TV; almost all of the Americans in the '30s watched TV out of their amazement of the new technology, which some researchers described as the magic" of TV. Add to this reason is their desire to be entertained (National Library of Medicine, 2019). It is due to these limited number of motivations that dominant media theories during the '30s describe TV audiences as passive viewers (Bandura, Ross & Ross, 1963), making other researchers refer to such studies to be confined within the "idiot box" narrative (Lotz, 2014).

However, from the '50s to the mid-'60s, the number of TV sets that were sold increased dramatically, so that almost all American homes had at least one TV set. The number and types of TV shows also increased, thus providing more choices to the viewers (National Library of Medicine, 2019). With the increasing choices also came the

increasing number of behavioral patterns exhibited by the American audiences, thus prompting some researchers, especially the Cultural Theorists, to challenge the idiot box narrative. Social scientists have also shifted from such narrative and begun to focus more on the sociological effects of watching TV (Steiner & Xu, 2018). Since the technology has become common, the "magic" has gradually disappeared that the majority of the Americans no longer watched TV just so they can satisfy their curiosity on the technology. The motivations became more complex as time progressed (National Library of Medicine, 2019).

Moreover, initially, in the '30s, the audiences adjusted their lifestyle to the new technology. However, starting in the '50s, the audiences have begun to adjust their TV viewing activities to their lifestyle patterns. This change paved way to what researchers call the "differentiation" of TV viewing. The differentiation was made more pronounced with the introduction of the cable system (National Library of Medicine, 2019, p. 53).

During the mid to late 1900s, other more complex motivations came about. One of these motivations is child learning. In an article written by the National Library of Medicine (2019) it was explained that mothers in the aforementioned period believed that their children increase their vocabulary from the TV shows that they are watching. The study also referred to identification as one of the major reasons for watching TV in the 1970s. Many of Americans who lived that decade believe that TV soap operas are accurate representations of real-world

scenarios, to which they can identify themselves. The study noted that this motivation decreases with the age of the viewers.

Studies performed in the 1970s revealed more complex motivations for watching TC compared to the previous decades. In separate studies conducted by Katz, Blumler & Gurevitch (2013) and McQuail, Blumler and Brown (1972), for example, it was shown that there sic major motivations observed among Americans for watching TV. These motivations include diversion, which include the needs for escape and release; surveillance, which pertains to the desire of the viewers to keep track and understand the different events in the world; personal identity, which pertains to the need to reinforce and understand one's attitudes and values; and personal relationship, which pertains to watching TV as a substitute for personal relationships.

By the 1980s and 1990s, diverse TV shows that tackle political topics flourished. Thus, the American TV viewers have also become motivated to watch TV in order to learn about their political candidates, programs, and other initiatives that concern the government. In a research conducted by Rubin (1983), it was explained that using the Uses and Gratifications Theory, it is possible to deduce the viewing patterns of TV viewers. These two patterns are "consumption and entertainment," and "non-escapist, information seeking." These viewing patterns are, in turn, correlated with viewing motivations.

The first pattern is strongly correlated with motivations like habit and passes time. This means that audiences decide to watch TV when they think that there is nothing better to do, such as to relieve boredom, or occupy their idle time; or for entertainment purposes.

Many Americans in the 1960s to the1980s primarily watch TV for amusement and enjoyment (Rubin, 1983).

What is most interesting about this type of viewing pattern, according to Rubin (1983), is that the motivations are still associated with the medium itself. This means that the content or the type of shows is not important, what matters more is the medium or the TV set itself. The second viewing pattern, on the other hand, is quite the opposite of the first, because it is highly affected by the content, rather than the medium. The study further explained that audiences that manifest the second viewing pattern usually spend more time watching TV than those who show the first viewing pattern.

It should be noted that Rubin (1983) was not the only one who observed that the motivations can result to different viewing patterns. Other researches that focused on viewing patterns came up with more categorizations, which were later termed, the types of gratifications. One of these types is called the Process Gratification, which is based on the idea that one of the reasons why the audiences are motivated to watch TV shows is the ease the technology's ease of use. It should be interesting to note, however, that this kind of motivation only became pronounced during the later years of the 1990s, due mainly to the high popularity of the internet, which paved way to the internet TV (Stafford et al., 2004; Kaye, 1998).

Interestingly, despite the differences in the viewing patterns and the length of time spent by audiences based on these patterns, all type of TV shows have increased over time. In a study conducted Kubey and

Csikzentmihalyi (2002), it was explained that there was also an increase in the number of talk shows in the 1990s and early 2000s that provided their viewers with recommendations for behaviors and products that could improve their lives. Thus, the American public has found learning to be an important reason or motivation to watch TV. The last type of gratification is called the Social Gratification, which has also started to show up in the later years of the 1990s and became prominent in the first and second decade of the 21st century (Affe, 2012).

People's Motivation for Watching TV in the 21st Century

Motivations to watch TV shows have continued to become more complex in the 21st century due to the advent of more advanced technologies and the ever increasing varieties of shows available. TV viewing has also changed in meaning. Cooper (2015) explained in his report for Sony, Inc. that there are six basic motivations for watching TV in the 21st century. The first is to unwind. Diverse individuals perceived watching TV as a de-stressing activity that frees them temporarily from chores and other day to day stresses. TV, therefore, has the ability to shift the mood or mental states of viewers in to a different need state.

The second motivation, according to Cooper (20150 is comfort. In the context of TV viewing, comfort is usually associated with shared family time. This is the reason why in the west, TV time is usually portrayed in picture as a family activity, where one of the members is holding the remote and all eyes are glued into the screen while

performing other activities like eating. As such, TV is also associated with togetherness, routine, familiarity, and rituals.

Note that a group watching TV together is somewhat reminiscent of the scenarios of TV viewing in the '30s. However, the focus or reason for watching in groups during those previous years is very different from the reasons in the 21st century. It should be noted further that comfort, entertainment, and recreation are hard to differentiate from each other, especially when families or a group of friends watch TV together. This might be one of the reasons why TV watching is considered the most recreational past time in US (Sussman & Moran, 2013).

The third motivation is to connect. For many audiences, watching TV is a way to feel connected to the society, time, and place (Cooper, 2015). This motivation is usually exhibited by sports enthusiasts who feel that they are being part of the sports community whenever they watch football, baseball, or soccer. There are even some instances when studies reveal that watching sports in TV is one way of acquiring of a feeling of belongingness to the American culture (Solberg & Hammervold, 2008).

Those who are inclined to engage in diverse political debates also tend to exhibit his motivation at a higher rate compare to those who do not. TV programs have already been politicized over the past few decades; hence, it was able to attract diverse viewers who inclined to become updated to political topics. For this type of viewers, watching TV news programs that engage on political topics is one way of

connecting with the political trends of the times (Kim & Viswanathan, 2015).

In a study conducted by Solberg and Hammervold (2008), it was explained that many of the American TV sports viewers watch live sports in television in order to "cultivating their favorite teams or athletes" (p. 96). Thus, aside from the motivation to connect, there is also the motivation to show support. The fourth motivation, which is experience, is related to the third motivation. Experience means that American viewers feel the need for fun and sense of occasion that should be shared with other individuals (Cooper, 2015).

The fifth motivation is escape. This is different compared to the first motivation, which is to unwind, because the fifth motivation is more associated with the concept of escapism rather than simple relaxation or de-stressing. The different scenes, plots, settings, and other TV show elements provide the viewer an opportunity to have an enjoyable, unique journey to another place and time (Cooper, 2015).

The sixth motivation is to indulge, which pertains to the desire to satisfy personal. Such pleasures are usually, "guilty pleasures," that are done alone. Such pleasures might include sexual pleasures derived from watching TV shows with pornographic content (Cooper, 2015). Other guilty pleasures include the pleasure derived from watching violent TV shows (Haridakis & Rubin, 2003). It should be noted that National Library of Medicine (2019) explained that watching violent TV shows is not always associated with the motivation of pleasure, because it is also associated with the motivation to unwind. The reason for this is

that watching violent TV shows has its ability to discharge aggressive feelings through what the Greek philosophers call “catharsis.”

In a study conducted by Tóth-Király et al. (2017), it was explained that many of the 21st century studies focus more on the type of shows watched rather than the technological medium in defining what TV viewing is. In the new definition, TV series that are watched in the internet or downloaded in another viewing media are still considered TV. Thus, despite the observed decrease in TV watching time in the traditional sense, the TV series watching has reached a renaissance in the 21st century.

The advent of new ICTs has also greatly multiplied the motivations for watching TV. One of the additions to the popular motivations of the late 1900s is language learning. As the number of non-native speakers in the US increased in number, the number of TV viewers who are using TV shows to learn how to speak the English language has also increased (Tóth-Király et al., 2017).

These individuals believe that by learning the English language, they will be able to assimilate themselves faster and better with the mainstream American culture. Tóth-Király et al. (2017), thus, inferred that one of the main motivations for modern day Americans to watch TV is self-development through learning. What distinguishes this motivation in the 21st century to the motivation of the 1970s, as previously discussed, is that in the 21st century, it is the adult non-White Americans, who show such motivations; while in the 1970s, it was the young White Americans (National Library of Medicine, 2019; Tóth-Király et al., 2017).

It is interesting to note that other studies show similar results in terms of the motivation of the audiences for self-development. In a study conducted by Lee and Taylor (2014), it was shown that diverse Americans, even medical or health professionals watch certain television shows for learning purposes. The study showed that some Americans watch TV medical dramas to learn about medical conditions and other health topics.

Tóth-Király et al. (2017) provided two more reasons or motivations. These two include identification and social interaction. The study describes identification as the process of identifying one's self to at least one of the TV show characters. This is one of the usual motivations of American viewers when watching TV opera shows. The process of identification also applies to the viewers' evaluation of the show's content with respect to their life experiences. Many viewers could relate some of soap operas' scenes to their actual life experiences.

With regards to social interaction, Tóth-Király et al. (2017) explained that many of American audiences watch TV shows because TV shows are some of the usually conversation topics during social interactions. Individuals feel that they could interact more if they watch the most popular TV soap operas, and other programs. Thus, they would always see to it that they obtain up to date information about such shows.

New ICTs has also paved way to a more active viewing of TV shows. In a study conducted by Barkhuus and Brown (2009), it was explained that the decoupling of TV shows was made possible with technologies that allows the downloading of the episodes of TV series,

so that they can be watched successively within a small period of time. This act of watching a series of TV episodes in one sitting is called binge watching. Results of the revealed that there five main reasons why modern day Americans engage in binge watching, which include catching up, cultural inclusion, improved viewing experiences, relaxation, and sense of completion.

The respondents in the study by Barkhuus and Brown (2009) explained that binge watching TV series gives them a sense of empowerment as it allows them to control their entertainment in accordance to their preferred schedule. The respondents also noted that while watching TV shows in accordance to their original airing schedule, they find it more relaxing for them to watch in series through binge watching. This new way of watching shows, therefore, tends to maximize the benefit of relaxation derived from watching TV programs.

What is even more interesting about the modern-day American viewers who engage in binge watching is that they also engage in "rebinging," or the repeated watching of past TV episodes. These individuals engage in this activity in order experience deeper level of relaxation as the said activity allows them to "unwind or to fall asleep" (Barkhuus & Brown, 2009, p. 9). It is also interesting to note that the researchers found out that the study participants derived different pleasures and uses for the different elements of TV shows. Some of the participants, for example, have explained that by focusing on the background music of TV shows, they are able to experience nostalgia, and pleasure while multitasking at the same time.

Interestingly, watching TV is also associated with the motivation to multitask. In a study conducted by Green (2014), it was shown that there are some American audiences who feel empowered to multitask, thus efficiently fulfilling their day to day work and obligations, when they watch TV shows that they are highly familiar with. Note that this is in contrast with the motivation to unwind or to fall asleep.

Many of the study respondents have also capitalized on the sense of completion that they experience when watching TV shows. They describe this motivation as being similar to the sense of completion that a reader acquires after finishing an entire book down to its last page. The majority of the respondents explained that this sense of completion is a vital motivational force for watching TV shows, especially through binge watching (Barkhuus & Brown, 2009).

The "catching up" motivation is far more complex than the other motivations, because it is determined by diverse social and cultural factors. It should be noted that diverse studies in the past, especially in the early 1900s, about the capacity of TV to instigate and support a certain culture among the viewers have suggested that TV shows can be used to support cultures. It is apparent that this power is real (Barkhuus & Brown, 2009).

Barkhuus and Brown (2009) further explained that people watch television in order to remain updated with the mainstream TV culture, which the majority of the American populace supports. When an individual realizes that he had missed a lot of the episodes of a popular TV series, he or she immediately engages in binge watching to let go of the fear or feeling of being left out. In other words, he or she has to

catch up so that he or she could remain included in the popular culture. Thus, cultural inclusion and catching up are to strong motivational forces that ensure that audiences go back to their TV screens regularly.

It is apparent that the advent of internet TV has also influenced the diversity of motivations of the American audiences. Hence, some studies try to determine the different motivations of Americans for watching broadcast TV or traditional TV and internet TV. One of these studies was conducted by Steinkamp (2010) wherein it was shown the majority of the motivations for watching traditional RV are interpersonal in nature.

Such motivations include companionship, entertainment, escape, social interaction, habit, relaxation, information, and habit; while those who prefer internet television have intrapersonal motivations which include convenience, control, and time shifting. There are diverse reasons for this observed differences, one of which is the traditional television provides more opportunity social interaction. The presence of advertisements in traditional TV also makes it less entertaining; thus, Americans who are motivated to watch TV entertainment resort to internet television (Steinkamp (2010).

Other studies that employ the Uses and Gratification Theory focus on the effect of variables such as age, gender, race, and culture to the motivations for watching TV. One of these studies was conducted by Harwood (2013). His study focused on adults and young adults, and the respective preference of these age groups to certain types of TV programs.

Note that the study by Harwood (2013) took a more theoretical take on its topics to show that the Social Identity Theory can be used in tandem with the Uses and Gratification Theory to understand the different motivations of TV audiences. It is important to recall that in the previous discussions that Tóth-Király et al. (2017) showed in their study that one of the most common motivations for watching TV is identification. A greater understanding of this motivation was shown in the study conducted by Harwood (2013), who showed that this motivation is more evident among younger audiences than adult audiences.

A deeper discussion of the "identification" motivation is explained in a study conducted by Sussman and Moran (2013), which shows that individuals tend to use this motivation, especially during ontological insecurity. Note that this explanation is based on the Media Systems Dependency Theory, but it is also touched by the Uses and Gratification Theory. In using this motivation, the individual has six main goals or needs that must be satisfied by watching TV. These needs include self and social understanding, solitary & social play, and action & interaction orientation.

Under the need for self-understanding, the individual seeks to reinforce his or her self identity in order to feel secure about his or her values and beliefs. Social understanding, on the other hand, pertains to the need to satisfy the individual's conviction that he or she has sufficient knowledge about how institutions and societies function, which are both essential in understanding and playing his or her role in

the society; which also leads to the satisfaction of the last need called the action orientation need (Sussman & Moran, 2013).

Under action orientation, each individual wants to understand how he or she must behave in a group or a community given a particular orientation, which interaction orientation pertains to the acquisition of interpersonal skills. Lastly, solitary and social play pertains to the entertainment or diversionary qualities of TV shows that is sought for by the viewer. As aforementioned, other viewers watch TV for the purpose of escapism. These motivations or purposes for watching TV have been observed in the 1990s up to the 21st century (Sussman & Moran, 2013).

ISSUES ASSOCIATED with TV in USA

TV viewing has, ultimately, become America's most popular past time; as such, it has also been one of the major topics of research in psychology and sociology. As more and more people became more concerned about the perceived negative effects of TV viewing to man's physical and psychological health, diverse studies have tried to determine the addicting characteristic of watching TV by focusing both at the medium and its contents (Sussman & Moran, 2013).

In a study conducted by Sussman and Moran (2013), it was shown that by simultaneously using the Uses and Gratification Theory with other theories that focus on the functional aspects of television viewing, the Media Systems Dependency Theory, it is possible to establish a relationship between TV addiction and audience motivation. In a study conducted by Kubey and Csikszentmihalyi (2002), it was shown that

TV addiction is more common to those audiences who are motivated to watch for entertainment and relaxation purposed, compared to those who watch TV for learning purposes. The main reason for this, according to Sussman and Moran (2013) is that TV shows that are watched for entertainment purposes are specifically designed to alter or change one's mood and emotions.

To explain their observations, Kubey and Csikszentmihalyi (2002) explained that TV addicts tend to show fast change in their moods and emotions. However, the sustaining of the new, positive emotion becomes heavily dependent on the TV show. Once the TV shows ends, or when the audience stops watching, the mood reverts back to its original state. This reversion is what caused the audience to continue to watch TV shows, thus ultimately turning into a addicting habit.

CONCLUSION AND RECOMMENDATIONS

It is apparent that the motivations for watching TV have increased in number and have become more complex since the 1920s to the present. This diversification of motivations is strongly related to the increase in the types of TV shows and the advent of new technologies, especially the internet and other information and communication technologies. During the early years of the 20th century the motivations were simple. Americans were motivated by their curiosity and their desire to experience TV. As the years went on, other motivations such as entertainment, socialization, and learning became evident. In the 21st century, more complex motivations such as identification and security

emerged. The growing popularity and accessibility of the internet and other information and communication technologies have also paved way to the increased accessibility and use of TV.

Even the definition of TV has changed overtime, when people begin to associate TV on its content rather than the medium. While the motivations from the 1920s were carried over up to the present time; the meaning of these motivations have also become complex. In the endeavors to understand the different motivations for watching TV, the Uses and Gratification Theory has proven to be useful and indispensible. It has even found its use other fields of studies like sociology and psychology, by using it simultaneously with other theories such as the Media Systems Dependency Theory. Through such strategies, motivations for watching TV have been used to gain a better understanding of TV addiction and other mental health concerns.

It cannot be denied that the diversity and volume knowledge about the motivations and the repercussions of these motivations to societies and health have been steadily increasing overtime. Interestingly, there are still some topics or subjects that are associated with TV viewing motivations and Uses and Gratifications Theory that needs to be further investigated. One of these topics is the differences between the expected effects of TV viewing to its actual outcome.

Some studies such as that performed by Sussman and Moran (2013), have already shown that the expected effects, which are really the motivations for watching TV, tend to be partially met which eventually lead to TV addiction; thus proving, that while the

motivations are positive in nature; they can also lead to negative outcomes. Studies that would deal with such topics are important additions to TV-related studies that are grounded in Uses and Gratification theory and can be used in different human endeavors such as in business and advertising. Such studies will also be instrumental in making TV more productive for the audiences.

Aside from such studies, it is also important for future studies to determine how traditional TV can be modified in order for it to stay competitive with internet TV. It should be noted that it has been shown in the previous discussions that modern day Americans are not longer mesmerized by the TV "magic" and that they are already changing their TV use in accordance to their lifestyle. Thus, for traditional TV to survive, it is important that it develop some characteristics or functionalities that would set it apart from internet TV. Some studies have already started on such topics, but they are still very few compared to others.

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CHAPTER 4:

The Effect of Career Barriers Perceived by University Students on Their Future Career, The Mediating Role of National Cultural Dimensions

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1. INTRODUCTION

Today's people have more alternatives about their careers. How good person can keep up with the selection variations depends on several factors such as their necessities and values (Gunkel, 2013). Within passing period from school to business life which coincide with the last years of university, students have to make plans for the areas they can select, prepare themselves for business world both psychologically and physiologically and construct possible career alternatives and plans. However, this period is difficult for the final year students because of the difference between student life and business life, having unreal expectations for business life etc. Lent, Brown and Hackett (1994) suggested that it was an important step to introduce supports and barriers within this difficult period in terms of career development (Ulaş & Özdemir, 2018: 674).

Career barriers are the strong situations which affect the career satisfaction and situation of person (Bhagat, 1999: 153). Problems which constitute barriers against career development of person can vary. Gender apartheid, racial-ethnical apartheid, personal features and other factors (economic problems, not having sufficient good grades, being not able to speak fluently, family problems pertaining to career selection, possible unemployment, not being able to attached to job environment due to other interests, not being able to have physical features which are necessary for certain jobs, having marriage plans in the future) were seen as career barriers which were mentioned by students (Sürücü, 2011:21). Despite the fact that it is seen as an expressed situation of the existence of a male dominant working

system, career development for females had always been remained unsolved. Eventually, in spite of all kinds of positive developments in international working conditions and human rights, females cannot still gain their deserved positions within working life today (Kara, 2019:68). Swanson & Woitke (1997) define the career barriers as "the events or conditions which obstruct inside or surrounding career progress of the person". This definition includes the concepts of both personal barriers (for instance, lack of interest) and environmental barriers (for instance, gender apartheid) which obstruct the career development (Lee et al., 2008:157).

As we consider the varying necessities and values of different people, cultural differences play an important role on the career decisions of people (Gunkel et al., 2013; Niles & Harris-Bowlsbey, 2013:59). For instance, within collectivist societies the destiny of group and individuals intertwined and the request of group stood out before personal decisions (Willner et al., 2015: 14). Individuals will not be able to make good plans on their careers in the places where power distance is high. In the societies with short term orientation, people are steady in their decisions. Therefore, it is expected to give less importance on the career planning in the short-term orientation cultures (Gunkel et al.,2013:50). Within this context, it was presumed that career barriers perceived by students had effect on the career future; individualism, power distance and long-term orientation dimensions of national culture would have mediating effect within this relationship.

2. CONTEXTUAL FRAME

2.1. Career Barriers, Career Future, National Culture Relationship

When the uncertainty and unpredictability of the career development are accepted within the twenty first century, communication speed, new forms of organizations, speed and amount of the change, life long learning, globalization and such subjects cause failures in the career progress. The formation of these difficulties affected much more complicated and aleatoric events to happen that people lived in the latest century (Niles & Harris-Bowlsbey, 2013:118). Accordingly, the adaptation of individuals to this said rapid changes during their career developments indicates an important situation in terms of both spiritual, emotional health's and career (Griffin & Hesketh, 2003 as cited in; Siyez & Belkıs, 2016:280). Career barriers are defined as "events or conditions" which results from both individuals' themselves and their environment and obstruct their career developments (Kalafat, 2014; Smith, 2004:49; Urbanaviciute et al., 2016: 12; Punch et al., 2006:225). Career barrier are strong situations which affect the individual's career satisfaction and conditions (Bhagat, 1999: 153). Crites (1969) put the career barriers into two groups as inner (lack of interest) and outer (gender apartheid) (Ulaş & Ozdemir, 2018:2). Career barriers causes the believes of individuals on their talents within their career development process and this situation affects their career selection behaviors. The problems which create barriers for the career development of individuals vary. These can be listed as a) indecision during selection b) concern about the decisions c) lack of

information for business environment d) inconsistency of individual properties and occupation and such factor (Ulaş & Özdemir, 2018). Within the social cognitive career theory, the barriers are evaluated as individual and environmental factors which complicates the career development; however, in the theory the barriers are considered as extra personal environment-specific factors. In other words, the theory focuses especially on the environmental negative effects (Ulaş & Kızıldağ, 2019). Individuals who believe themselves in terms of overcoming the obstacles in their careers will be able to have optimistic opinions about their career future (Kalafat, 2012). Kalafat (2014) determined the negative relationship between perceived career barriers and career future in his study. Career future was defines as having knowledge about career adaptability, career optimism and career alternatives and explained in relation to the said concepts (Rottinghaus et al., 2005). Career optimism is to have a positive perspective about the career future despite the fact that it is difficult to realize the expectation pertaining to career plan and to make efforts to realize the targets accordingly (Erdoğmuş Zorver, 2011: 41). Career optimism is related with the behavior of expecting good results for the career in the future (Spurk vd., 2015:134) Moreover, it characterizes the individuals who are optimistic and positive in terms of career development and feel free to perform career planning duties. Career consistency is the quick adaptability against changing work responsibilities and at the same time unexpected changes in career plans (Gunkel et al., 2013) the ability of career adaptability is determined beginning from the first periods of life (Hartung et al., 2005). This characteristic is the coping skill of

individual with life and this can be learned through experience (Chan & Mai, 2015:130).

Career adaptability consists of four basic approaches as interest, curiosity, trust and control (Kalafat, 2014: 170). Career interest includes the integration of the frame and configuration of individual's career development in the future and career predictions and goals. Career curiosity defines the explorement of individual the most appropriate alternatives between business life and himself/herself. Career trust is defined as the ability perceived for the individual to bring off the activities in order to reach his/her objectives. Career control is related with the fact that the individuals believe that they shoulder responsibility to evaluate their careers (Zacher, 2015:76; Horst et al., 2017:132). Career knowledge is the individual's perception to understand the job market and employment trends (Gunkel et al., 2013). The individuals who have self-sufficiency to overcome the obstacles will be able to have positive thoughts about the career adaptability, optimism and career knowledge. Siyez & Belkıs (2016) determined a positively meaningful relationship between the career optimism and social gender perception in their study. Chan & Mai (2015) determined a positive relationship between career adaptability and career satisfaction and a negative relationship between leave tendencies in their study.

Most of the time, the most significant life role patterns of individuals are transferred frequently from popular or dominant culture (Niles & Harris-Bowlsbey, 2013:59), from national culture dimensions, according to Hofstede (1997:36) it is seen that social classification is

lower in the places where power distance is felt at low levels. Probably, it can be said that democratic participation is higher and refraining from executives is lower. In the places where power distance is high, individual will not be able to plan their career well. In the places where power distance is high, it can be presumed that there is a positive relationship between career adaptability and power distance because individuals should obey the decisions of their superiors (Gunkel et al.,2013:50). In the study of Gunkel et al., 2013 (50), a negative relationship was determined between power distance and career adaptability, career optimism and career knowledge. In this context;

Hypothesis 1a: In the effect of perceived career barriers to career adaptability, there is mediating effect of power distance among national culture dimensions.

Hypothesis 1b: In the effect of perceived career barriers to career optimism, there is mediating effect of power distance among national culture dimensions.

Hypothesis 1c: In the effect of perceived career barriers to career knowledge, there is mediating effect of power distance among national culture dimensions.

Individualism defines the relationships between the community or individuals within a certain society. Within a society where individualism values are high, everybody pays attention to themselves and their closest family. “I” is preferred. The fundamental of identity is the individual. The individual believes in his/her decisions (Hofstede, 1997:36) However, within societies where collectivist values are high, the individuals born to sustain and nourish a family and clan. “We” is

preferred. The identity is formed within a social system. Group decisions are believed (Terzi, 2000:67). Within collectivist societies, the destiny of group and individual interlace and group decisions come into prominence before individual decisions (Willner et al., 2015: 14). For instance; in the study of Beyon et al. (1998), it was determined that while choosing their career Chinese students put special emphasis on whether the selected career is honorable for their family or not (Gürbüz & Sığrı, 2012: 1). China is a collectivist culture. The individuals pay attention to the loyalty to their group by adhering to their groups or organizations while taking decisions. On the other hand, in the United States of America which is an individualist society, the individuals do not ask others' opinions while taking decisions (Birsel et al., 2009: 249). In the study of Gunkel et al., 2013:50, a negative relationship was determined between individualist culture and career adaptability, knowledge and optimism. The following Hypothesis can be developed by considering the information gained from literature:

Hypothesis 1d: In the effect of perceived career barriers to career adaptability, there is mediating effect of individualism among national culture dimensions.

Hypothesis 1e: In the effect of perceived career barriers to career optimism, there is mediating effect of individualism among national culture dimensions.

Hypothesis 1f: In the effect of perceived career barriers to career knowledge, there is mediating effect of individualism among national culture dimensions.

In the long-term orientation, the individuals will direct the values (prudence, persistence and so on.) they found to future. On the other hand, in short term orientation, the individuals will direct the values (respect for traditions, discharging the responsibilities and so on.) they to past or present (Hofstede, 1993,90 as cited in:Yüksel, 2013). The societies with short term orientation persistent against short term summative assessment and slow results (Hofstede, 2001). Therefore, in the societies with short term-oriented cultures career planning is expected to appear than long term-oriented cultures. Long term orientation is related with the high career optimism. According to Hofstede (2001), it was assumed that the individuals in long term-oriented cultures would have career adaptability abilities. On the other hand, the career knowledge is related with the job market tendencies which can be seen important with a short-term perspective (as cited in Rottinghaus et al.,2005, Gunkel, 2013). In the study of Gunkel et al., 2013:50, a negative relationship was determined between long term orientation and career adaptability, career knowledge and career optimism. The following Hypothesis can be developed in the light of the information gained from literature:

Hypothesis 1d: In the effect of perceived career barriers to career adaptability, there is mediating effect of long-term orientation among national culture dimensions.

Hypothesis 1e: In the effect of perceived career barriers to career optimism, there is mediating effect of long-term orientation among national culture dimensions.

Hypothesis 1f: In the effect of perceived career barriers to career knowledge, there is mediating effect of long-term orientation among national culture dimensions.

3. RESEARCH METHOLOGY

3.1. Research Objective and Model

In the study, it was aimed to determine the effect of career barriers perceived by university student on their career future and the mediating role of power distance, long term orientation and individualism from national culture dimensions in this effect.

Under the title of research methodology, first of all information pertaining to sample, data collection method and scales were given. By using the data gained from samples, Hypothesis pertaining to the model were tested. Confirmatory factor analysis was applied on each variable, then correlation between variables were determined. Afterwards, analyses related with the structural equation model (YEM) were applied. Model is indicated in Figure 1.

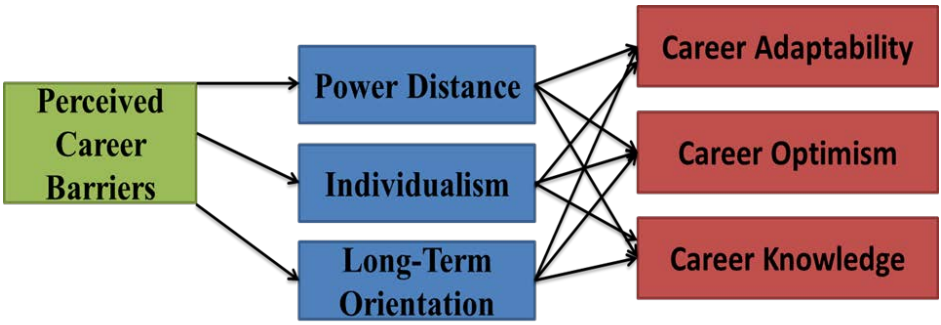

Figure 1: Study Model

3.2. Determination of Samples

Population composes of graduate students of the departments of Economics and Administrative Sciences Faculty; Business Administration, Political Sciences and Public Administration (Daytime and Evening Education), Political Sciences and Public Administration (Evening Education) and Economics and non-thesis and thesis master degree students of the Department of Business Administration. 560 student groups were determined via random sampling method.

3.3. Data Collection Method

Questionnaire technique was used as data collection tool in the study. The questionnaire form developed for data collection was composed of 3 sections. The first section was developed in order to determine the demographical features of the employees. The second section was composed of career barrier scale, national culture scale and career future scale.

3.3.1. Career Futures Inventory

The Career Futures Inventory (CFI) (Rottinghaus, Day & Borgen, 2005) which was developed in order to evaluate the positive career planning attitudes of individuals was adapted to Turkish by Kalafat (2012). The Career Futures Inventory consists of 3 sub-dimensions as Career Adaptability, Career Optimism and Perceived Knowledge of Job Market and 25 items. In this study, it was determined that 4 items in sub-dimension of career adaptability and career optimism had low factor load. The expressions with low factor load was excluded and reliability co-efficient of the scale with 21 items was calculated as 0,89

in total. After all these analyses, confirmatory factor analysis was applied with Amos package program. Goodness of fit values of the scale was presented in Table 1.

3.3.2. Perceived Career Barriers Scale

The perceived career barriers scale was developed by Sürücü (2011) and consists of 8 factors. These factors are gender apartheid, career future and job market barriers, difficult of career training and working conditions, barriers related with lack of ability and interest, lack of motivation and insufficient preparation, transportation, personal problems and family & environment. The internal consistency coefficient of the scale total is found as α=.91. In this study, original scale with 8 factors was ensues as single factor according to confirmatory factor analysis. 7 items which had low factor load according to confirmatory factor analysis were removed from the analysis. Goodness of fit of the scale was presented in Table 1.

3.3.3. National Culture Scale

The version which was tested in terms of validity add reliability by Wu, 2006 of the scale that is used for determining the culture sizes of Hofstede was used (Yüksel, 2013). The scale consists of five dimensions as power distance, collectivism, masculinity, uncertainty avoidance and long-term orientation. The said scale is designed according to fivefold likert scale and is scaled as “(1) Strongly Disagree”, “(2) Disagree”, “(3) Neutral”, “(4) Agree” and “(5) Strongly Agree”. In this study only 3 dimensions (power distance, long-term orientation and individualism) were considered in this study, it was

determined that 1 item had low factor load in power distance and the expression with low factor load was removed from the study.

The reliability coefficient for power distance was measured as α=.85. Goodness of fit values were presented in Table 1.

Table 1: DFA Goodness of Fit Indices of the Scale

Acceptable Fit Indices	**AKE**	**UK**	**KG**
$\chi 2/sd<5$	4,538	4,882	4,246
GFI >0.90	0,901	0,913	0,989
AGFI >0.90	0,949	0,928	0,969
CFI >0.90	0,989	0,996	0,958
NFI ≥0.95	0,969	0,979	0,925
RMSEA <0.08	0,073	0,063	0,064

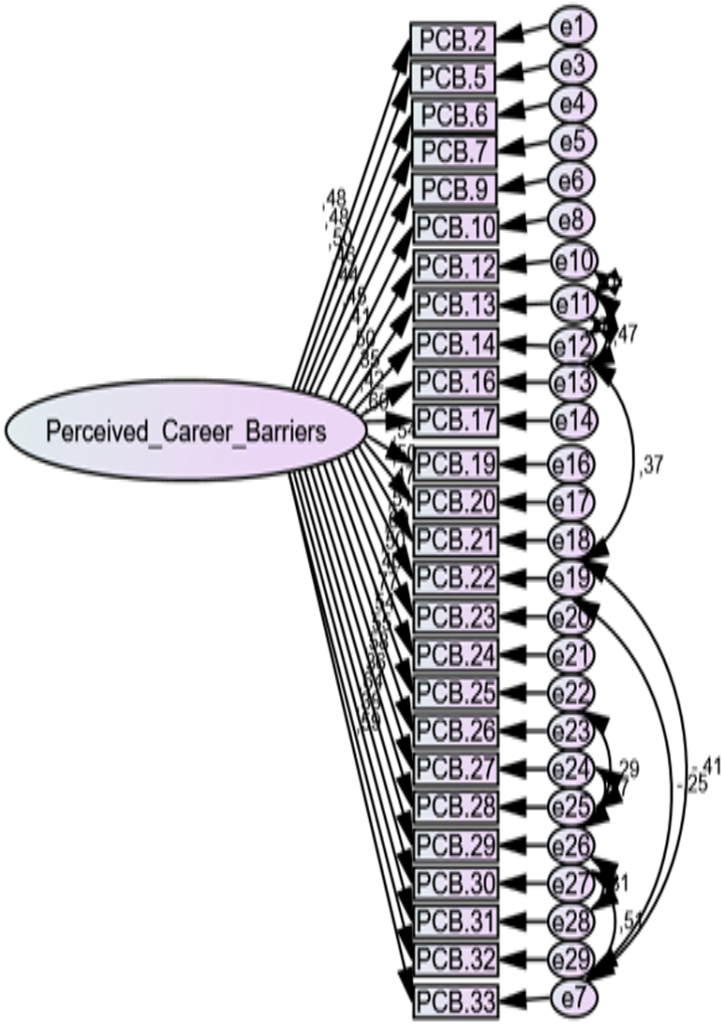

Figure 1 : Perceived Career Barriers Path Diagram

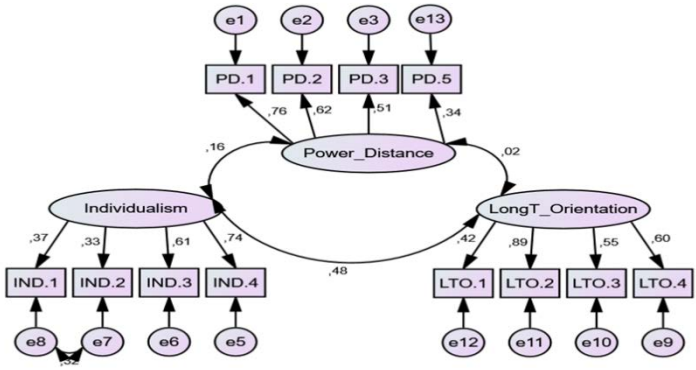

Diagram 2: National Culture Path Diagram

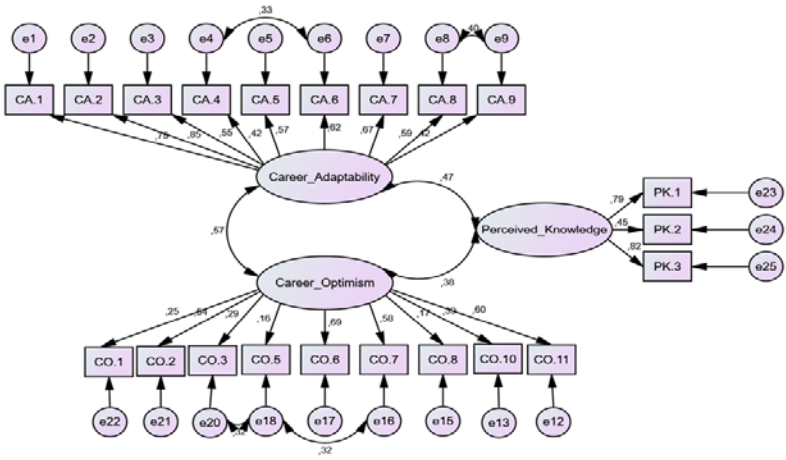

Figure 3: Career Future Path Diagram

4. DATA ANALYSIS AND FINDINGS

Table 2: Personal Information of Students

		n	%
Gender	Female	287	51,2
	Male	273	48,7
Age	18-25	414	73,9
	25-35	146	26,0
Educational status of father	Not graduated	81	14,4
	Primary school graduate	149	26,6
	High school graduate	289	51,6
	College graduate	41	7,3
Educational status of mother	Not graduated	127	22,6
	Primary school graduate	252	45
	High school graduate	191	34,1

51,2% of the students are female, 73,9% is between the ages of 18-25, father of 51,66% is high school graduate, mother of 45% is high school graduate.

Table 3: Descriptive Statistics of Career Barriers, National Culture, Career Future Points

n=560	Minimum	Maximum	Average	Std. Deviation	Level (%)	Deviance	Kurtosis
Career Barriers	19	95	57,75	13,01	60,8	-0,25	0,22
Power Distance	4	20	11,77	3,70	58,8	-0,30	-0,61
Individualism	4	20	15,40	3,22	77,0	-0,53	-0,44
Long Term Orientation	5	20	15,24	3,05	76,2	-0,51	0,44
Career Adaptability	9	45	32,43	6,22	72,1	-0,83	1,77
Career Optimism	20	45	30,63	5,91	68,1	0,60	-0,43
Career Knowledge	3	15	9,53	2,82	63,5	0,09	-0,80

For students, average point for career barrier is 57,75±13,0. Average point for power distance is 11,77±3,70, Average point for Individualism is 15,40±3,22, Average point for long term orientation is 15,24±3,05. Average point for career adaptability 32,43±6,22, Average point for career optimism is 30,63±5,91, Average point for career knowledge is 9,53±2,82.

Table 4: Relationship of Career Future and Career Barriers, National Culture Points

		Career Barriers	Power Distance	Individualism	Long Term Orientation	Career Adaptability	Career Optimism	Career Knowledge
Career	r	1	,335**	,-191**	-,116	,174**	-,236**	-,263**
Barrier	p		,000	,000	,047	,114	,000	,000
Power	r		1	,196**	-,026	,024	-,263**	,373**
Distance	p			,001	,666	,690	,000	,000
Individualism	r			1	,359**	,248**	,040	,214**
	p				,000	,000	,508	,000
Long Term	r				1	,274**	,303**	,074
Orientation	p					,000	,000	,225
Career	r					1	,437**	,293**
Adaptability	p						,000	,000
Career	r						1	,077
Optimism	p							,210
Career	r							1
Knowledge	p							

*p<0,01 meaningful relationship

There is a positive relationship between perceived career barriers and power distance point (r=0,335) and negative relationship among ındividualism (r=-0,191), career optimism (r= -0,236), career knowledge (r=-0,263) points (p<0,01).

Power distance point has a positive relationship with ındividualism (r=0,196) point, negative relationship with career optimism point (r= -0,263) and positive relationship with career knowledge point (r=0,373) (p<0,01).

Individualism point has a positive relationship with long term orientation (r=0,359) point, positive relationship among career adaptability (r=0,248), career knowledge (r=0,214) points (p<0,01).

Long term orientation point has positive relationship with career adaptability (r= 0,274) point and positive relationship with career optimism (r=0,303) point (p<0,01).

Career adaptability point has positive relationship with career optimism (r=0,437) point and positive relationship with career knowledge (r=0,293) point (p<0,01).

In Figure 4, there are effects between independent and dependent variables.

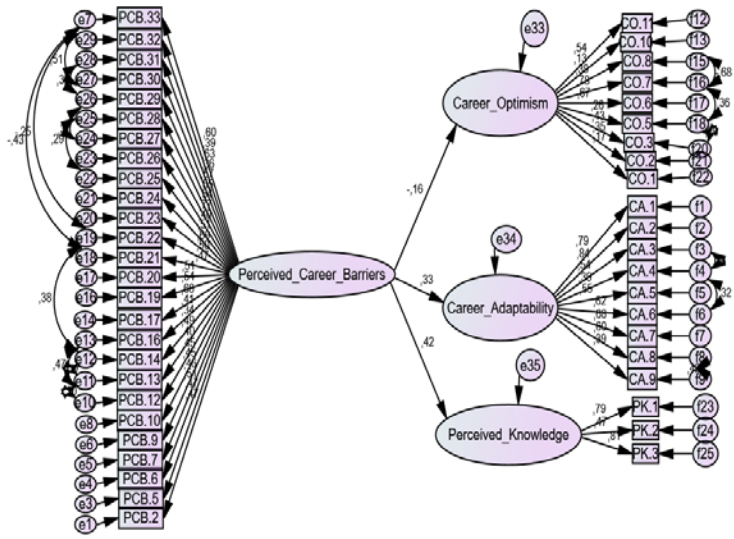

Figure 4: Direct Effect Diagram

DIRECT EFFECT COEFFICIENT

			Estimate	S.E.	C.R.	P
Career_Optimism	<---	Perceived_Career_Barriers	-0,163	0,069	-2,255	0,000
Career_Adaptability	<---	Perceived_Career_Barriers	0,326	0,089	4,209	0,325
Perceived_Knowledge	<---	Perceived_Career_Barriers	0,422	0,125	4,827	0,546

In Yem 1 in which direct effect was examined, perceived career barriers has negative effect on career optimism (β=-0.163) p=,000<0,05. According to this, the first condition of Baron & Kenny (1986) was provided.

Goodness of fit values of the model which was made to test the effect of perceived career barriers on career future were determined as $\chi 2/sd$ =4,296, GFI =0,938, AGFI =0,886, CFI =0,904, RMSEA =0,060, RMR =0,044. It is seen that model fits well according to analysis results.

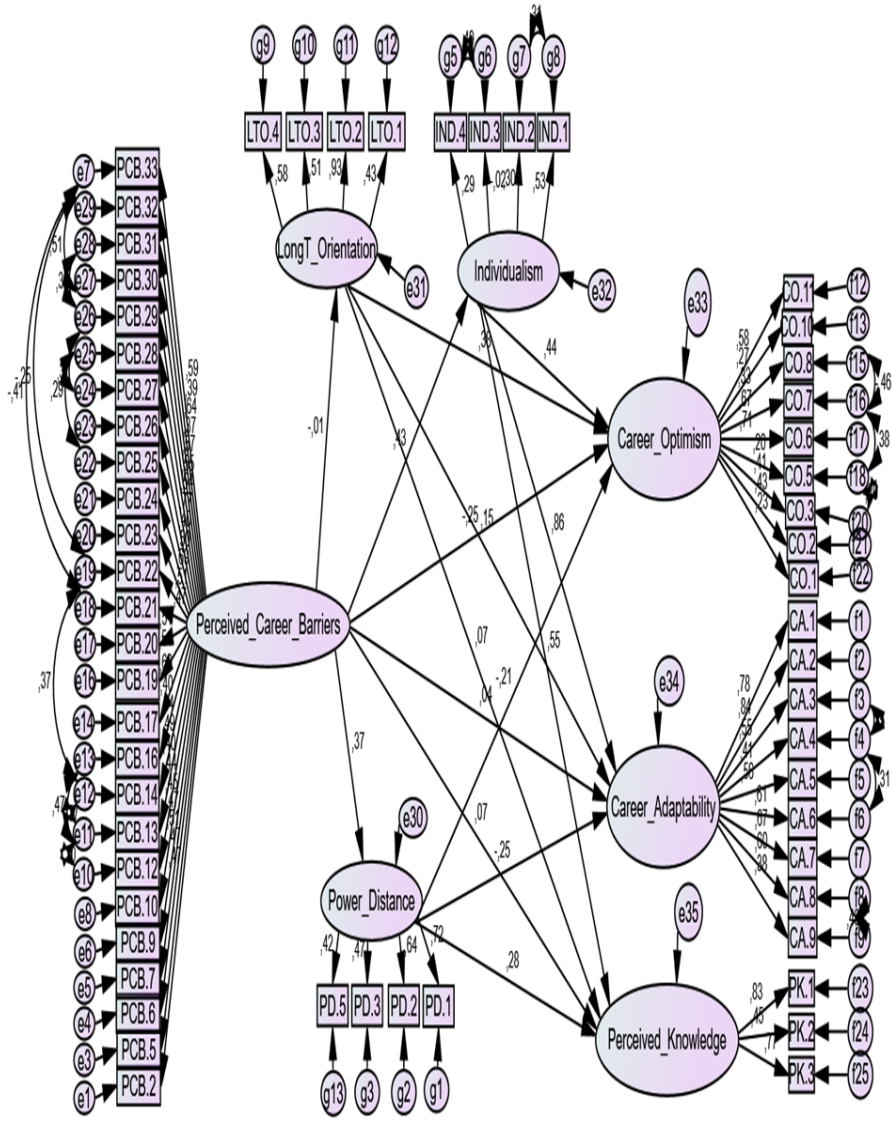

Figure 4: Path Diagram and Std. Regression Coefficients

Table 5: YEM Results

Dependent Variables	Path	Independent Variables	Estimate	s.e.	C.R.	p
LongT_Orientation	<---	Perceived_Career_Barriers	-0,006	0,061	-0,090	0,929
Individualism	<---	Perceived_Career_Barriers	0,433	0,075	2,936	**0,453**
Power_Distance	<---	Perceived_Career_Barriers	0,368	0,136	4,160	**0,000**
Career_Optimism	<---	Perceived_Career_Barriers	-0,253	0,101	-2,534	**0,511**
Career_Adaptability	<---	Perceived_Career_Barriers	0,039	0,128	0,350	0,726
Perceived_Knowledge	<---	Perceived_Career_Barriers	0,068	0,142	0,726	0,468
Career_Optimism	<---	LongT_Orientation	0,377	0,094	4,559	**0,000**
Career_Adaptability	<---	LongT_Orientation	0,147	0,078	2,425	**0,015**
Perceived_Knowledge	<---	LongT_Orientation	0,072	0,109	1,114	0,265
Career_Optimism	<---	Individualism	0,438	0,273	3,193	**0,001**
Career_Adaptability	<---	Individualism	0,864	0,525	3,715	**0,000**
Perceived_Knowledge	<---	Individualism	0,551	0,451	3,617	**0,000**
Career_Optimism	<---	Power_Distance	-0,205	0,057	-2,381	**0,001**
Career_Adaptability	<---	Power_Distance	-0,250	0,058	-3,233	**0,001**
Perceived_Knowledge	<---	Power_Distance	0,278	0,083	3,290	**0,001**

Table 6: YEM Fit Indices

Acceptable Fit Indices	Measured Fit Indices
$\chi 2/sd$ <5	3,331
GFI >0.90	0,979
AGFI >0.85	0,861
CFI >0.90	0,926
RMSEA <0.08	0,061
RMR <0.08	0,077

In Table 6, goodness of fit values of the model can be seen. As a result of the first analysis made on basic structural equation model, it was seen that the whole goodness of fit values is within the acceptable border. There are not meaningful relationships between perceived career barriers and long-term orientation and individualism. Nevertheless, it is seen that perceived career barriers had a meaningful effect on the power distance (Baron & Kenny (1986) the second condition). In the third model in which mediating effect was tested, the fact that the result was meaningless for the relationship between perceived career barrier and career optimism indicates the full mediating role (B=-0,253; p =0,511; p>0,05) (Baron & Kenny (1986) the third condition) sobel test (z=2,309;p<0,05), According to this, Hypothesis 1b was accepted.

RESULTS AND RECOMMENDATIONS

As the number of the barriers that are perceived by individuals, it can be said that they have more positive thoughts for their career future and adaptability power increases. It is seen that, the individuals who believe in themselves in order to overcome the obstacles against their careers and who have optimistic thought about their futures designated much more objectives about their futures. Within this context, the main subjects of this study are the effect of the barriers of university students' professional futures with the effect of today's changes on their career future perceptions, whether power distance, long term orientation and individualism dimensions of the national culture are importantly explanatory or not.

In the study, a negative relationship was found between career barriers variable and career optimism among career future dimensions. In accordance with the analysis results, power distance dimension of national culture has a full mediating role on the relationship between career barriers-career optimism. According to Hofstede (1997:36), social classification is seen at lower levels in places where power distance can be felt at lower levels. It can be said that probably democratic participation will be higher, and avoidance of superiors will be lower. In a society with high power distance, inequality between people and dependency of less powerful people to more powerful people are expected situations. In places with high power distance, individuals will not be able to plan their careers very well (Gunkel et al.,2013:50). In one sense, in places with high power distance,

individuals will be able to insert their superiors and families into their career configuration and therefore this situation will be able to affect their career decisions.

Munzur University includes Humane and Social Problems Application Center and Women's Studies Social Gender Application Center. This subject is having importance for a new and developing university. However, new establishment of these centers brings along systematic problems. The main problems are that sufficient studies could not be done about the subject yet and there is no sufficient manager to administer these centers. In social gender application center, directing especially female students with psychological support in order to provide work-family life balance will be able to directly effective on the career developments of the students. In this context; it can be said that increase in the effectiveness of the units which will provide support to students while taking effective and correct decision in their career selections and planning their career paths will be an important activator in determination of future career values by directly affecting the students' career developments. Especially in places with high power distance, it can be said that by the professional help of career consultants, students will be able to make more healthy decisions.

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CHAPTER 5:

Competence-Based Language Teaching (COBALT): A Minimalist Method of Language Teaching[1]

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INTRODUCTION

As new trends in SLA studies continue to grow across the cognitive linguistics field in the world, linguists and language practitioners are in search of exploring and attempting innovative practices in language teaching classes. Among them minimalist applications seem to be the most pragmatic and economic in developing feasible learning strategies and new dimensions of language teaching. A single type of approach to language learning for all learners of different native language origins in all over the world without referring to language particular properties has always sounded too assertive and idealist to be achieved. The ideas as well as discussions on accessibility to Universal Grammar (UG) during second language (L2) acquisition led us to the assumption that the concepts such as principles, parameters, grammatical learning and lexical learning defined under the theory of Universal Grammar, Principles and Parameters Theory (PPT) and the Minimalist Program (MP) for first language acquisition process can also be viable for L2 learning process. However, instead of making use of universal properties suggested to be found in almost all languages and focusing on the parametric variations varying from one language to another, current language teaching or learning practices which give priority to communicative needs seem to have found the solution in avoiding first language grammatical knowledge during a new language learning process. The available contemporary foreign language teaching approaches and methods followed not only in Turkish Educational Institutions but also in the World can be seen ignoring either universal

principles or parametric variations and linguistic features between languages. Parameter setting relies on L2 input for every student from different L1 origin. This is particularly problematic when there are several parametric variations between the L1 and the L2 as in the case of Uralic-Altaic head-last language Turkish and Indo-European head-first language English. Considering the innovations brought about by the UG and PPT and revised by the minimalist approach, it has been discussed how learnable English is in the current national educational institutions for a Turkish speaking English learner. The obtained data showed that the L2 grammar presented in the textbooks contains either unnecessary explanations and rules for target structures that are easily accessible through L1 competence but does not contain enough explanatory or reinforcing activity compared to those structures accessible via L1 that require parameter setting through L2 input (Şeker, 2017a). Therefore, this study aims to introduce the Turkish Competence-Based Language Teaching (COBALT) Method with an appropriate natural acquisition order for Turkish speaking learners via getting rid of superfluous explanations and rules for the universal properties and similar parametric values and focusing on setting new parametric values between Turkish as L1 and English as L2. This is an important study in that it introduces an overall picture of an original teaching method with original principles, learning strategies and techniques based on a minimalist model of learning and a competence based syllabus designed by a minimalist approach.

UG with its PPT sub-theory and MP is a fundamental linguistic theory which must be taken into consideration more delicately in

language teaching methodology. Formulated by Chomsky (1965), these theories classify the components of languages as “language universals which posit principles of grammar shared by all natural languages as an innate ability of human beings and language particulars, ignoring the former and extracting them from what is known as the grammar of a specific language” (p.6). In this methodological study, just as in the case of L1 acquisition, we aim to outline these principles and parameters particularly in English and Turkish languages in order to identify what is to be lexically learned and what is to be taught, or let’s say, how a new linguistic English knowledge is to be learned (i.e. lexically or grammatically) by a learner who has competence in Turkish grammar (i.e. native speaker). Hence, L1 transfer in language learning is regarded as a process by which students use their L1 grammatical knowledge to make conclusions about L2. During the process of L2 learning, learners already have general knowledge of language whether they are aware of it or not. They know, for example, lexical grammatical categories such as adpositions, verbs and nouns or functional categories such as determiner, tense and aspect etc. and they also know binary merging operations. When they start learning a foreign language, they access to their unconscious L1 knowledge, or competence, which may help acquisition of subsequent languages. A Turkish speaking English learner can grasp the grammatical structure of English in terms of the universal principles already acquired through his competence. We can associate this assumption with the UG which is assumed to be manifested in L1. Therefore, “learning L2 is different from L1

acquisition in that “L2 learner already has language background (as in the case of UG when learning L1) interfering with his successive language experiences” (Schwartz and Sprouse, 1996:40). Moreover, for any L2 learner, especially for adult learners, L2 initial lexical state is also based on a certain amount of lexicon composed of common phonetic forms used in either L1 or L2 language. This condition leads us to the assumption that the UG concepts such as grammatical learning and lexical learning defined for L1 acquisition can also be viable for learning L2, marking all parametric variations and language particular grammatical features as grammatical learning and the rest as lexical learning.

Consequently, the COBALT method is based on the assumption that learning English grammar will be simpler and easier for Turkish speaking learners if it is introduced in a way by which they can achieve accessibility to UG. Accordingly, this study not only aim to develop a competence based language teaching method but also aim to outline the principles, learning strategies and teaching techniques as well as the properties of an appropriate English course book designed to be used in COBALT classes. In order to develop this method, in this study, after the statement of the problem and the aim of the study in this part, the theoretical background including linguistic theories such as UG, PPT, MP and the cognitive ideas such as learning models on which our methodological suggestions are based are revised. For the following sections, the minimalist approach dominating the approach through which the COBALT is designed is explained together with the principles it posits. After the theoretical background

and the approach, the last part of the study covers the body of the study in which the basic learning strategies and teaching techniques, as well as course book and syllabus design of the method are described.

THEORETICAL BACKGROUND

The Competence-Based Language Teaching Method introduced is the result of a five-year study beginning from Şeker (2015) focusing on identifying the parametric variations between Turkish and English Languages in terms of Minimalist Program, Şeker (2016) designing a competence based syllabus for L1 Turkish learners of L2 English, and the ideas and studies based on the data obtained from a 3001 Research and Development project titled 'Developing a Grammatical Competence-Based Foreign Language Teaching Model and a Turkish Competence-Based English Course Book Prototype (2017-2019)', allowing accessibility to Universal Grammar during parameter setting process and supported by Scientific and Technological Research Council of Turkey (TUBITAK). Under the scope the project, Şeker (2019) applied COBALT as a minimalist method of language teaching to 21 Turkish speaking adult students in language teaching classes of total 40 hours during a ten-week period. The purpose of the controlled longitudinal study was to explore ESL students' performances in COBALT classes in a Turkish state university context. The data from the research were interpreted particularly in terms of two implications: linguistic implications and methodological implications. As to the linguistic implications, the participants were found having no direct access to UG principles and parameters through the L2 input since

they transferred their L1 knowledge to their L2 production not only where principles worked but also where parametric variations and grammatical features occurred. As for the methodological implications, it was found out that the COBALT was successful and economic in terms of cost–benefit analysis since 57% of the participants tutored through COBALT had achieved between 50 and 100 points in the achievement test, 24% of which was above 70 points.

The theoretical fulcrum of COBALT method is based on Principles and Parameters Theory (Chomsky, 1981b) under the scope of the theory of Universal Grammar. The idea of associating parametric variations and second language learning is particularly discussed by White (2003) and Cook and Newson (1996). After these ideas are reviewed in terms of L2 acquisition, learning and teaching perspectives, they are revised through minimalist approach suggesting a competence based L2 learning model and a teaching method. The COBALT method is established on the basis of the 'Minimalist Model' of language learning explaining the cognitive state of L2 learning reducing L2 learning to its fundamental elements and achieving simplicity in cognitive representation, abolishing unnecessary elements in order to explain L2 learning simpler and more pragmatic in terms of grammatical learning and lexical learning (Şeker,2019). In the terminology of the UG, grammatical learning is taken under the concepts of principles and parameters both of which are regarded as a model of language acquisition.

Chomsky (1965) maintains that ‘‘every speaker of a language has an internalized generative grammar that expresses his knowledge of his language” (p.9). This innate knowledge of grammar is described as “competence” (Chomsky, 1965:15). In other words, “it represents what the speaker knows in the abstract” (Cook-Newson, 1996: 23). In the early phases of UG, an innate Language Acquisition Device (LAD) was thought to process the linguistic data as input and form the grammar as output (Chomsky,1964). This grammar was not composed of ready-made rules but parameters set according to the input which a child receives. These rules were called the core grammar or core rules. Later, “Chomsky (1964) replaced the LAD model of acquisition by the parameter-setting model” (Cook and Newson, 1996: 125). According to this improved model of language acquisition, “there is a system of principles, conditions and rules that are elements or properties of all human languages, which means that a native speaker of any language knows a set of principles that work in all languages and parameters that vary from one language to another” (Chomsky,1976: 29). Then, Chomsky (1981b) summarizes principles and parameters and states that “what we know innately are the core grammar principles and the parameters associated with them but what we have to learn are the values of the parameters,” to which we refer as the extent of lexical learning and grammatical learning available not only for children’s L1 but also for adult’s L2 (p.118). Similarly, Cook (2001) comments that “all human minds are believed to honor the common principles that are forced on them by the nature of the human minds, only differing over the settings for their parameters for

particular languages" (p. 34). In terms of the contents of these principles and parameters, Şeker (2015) maintains that "the sub-theories such as X-bar, movement, move α, □-Criterion, government, c-command, case adjacency, case filter, binding, projection, extended projection, subject-head agreement, proper government, empty category, control, subjacency, head movement constraint and barriers which are outlined in UG constitute the modules of UG highlight a universal principle of human languages" (p.55). Since these properties of languages can be observed in almost all human languages, they are regarded as the universal principles. Parameters, on the other hand, are "language particular aspects of grammar varying from one language to another" (Radford, 2009; 16).

In terms of 'language acquisition' and UG concepts, Radford (2004) asserts that "the uniformity in the types of grammars developed by different speakers of the same language reveals that children have genetic guidance in constructing their L1grammar" (p.10). As for L2 learning, however, there is a difference particularly for adult learners who are supposed to be older than the critical age for accessing to UG. In this state, common principles and variable parameters are manifested in L1 and L2. Parameters different from L1 are assumed to be set through more cognitive learning strategies. Until these new L2 parametric values are set successfully, L1 speaking L2 learners create a pidgin-like language, transferring L1 parametric values for all the parameters of a certain language which they learn as L2, but still trying to utter L2 with an appropriate lexicon. At this stage, there occurs another theoretical discussion on the "theory of the initial state

of the language faculty, prior to any linguistic experience" (Chomsky, 1986:3). According to Cook and Newson (1996), in the beginning, the mind of a new-born baby who knows no language is defined as the 'initial zero state' (S0), which means a newborn baby has no grammatical knowledge of any language but the UG. Regarding the UG as the initial grammatical knowledge state for a new born baby also brings about the discussions on the initial state of L2 learners. At this point, Schwartz and Sprouse (1996) suggest that "FL acquisition is fundamentally different from F1 acquisition since L1 grammar is the initial state for L2" (p.40). Then, the initial state is characterized by L1 grammatical knowledge for an adult L2 learner. As stated by White (2003) and Schachter (1988) assert that learners can access to UG only through the L1.

If any grammatical operation is observed in a particular human language but not in the other, then this operation is regarded as a parametric variation. Particular grammar of any human language is limited to those language particular variations. The act of achieving the knowledge of L2 parametric values occurs in two ways: either by grammatical learning or by lexical learning. Grammatical learning is regarded as the quality of the act of achieving knowledge of language (Şeker, 2015). "If all natural language grammars were the same, there would be no grammatical learning involved in language acquisition" (Radford, 2004:16). Lexical learning, on the other hand, requires "no need for learners to learn anything about the grammar but the lexical items (i.e. lexicon) in the language and their properties" (Radford, 2004;16). This is also discussed as "markedness" in terms of previous

linguistic knowledge in the literature (Ellis, 2008). While principles and common parameters, if any found out, are regarded as the unmarked structures which do not require grammatical learning but lexical learning only, the parametric variations and the language particular grammatical features are regarded as marked structures which require grammatical learning, extracting those requiring lexical learning from the target grammar (Ellis, 2008:591).

The Extent of Grammatical Learning and Lexical Learning

As for the content of the grammatical learning, parametric variations between L1 and L2 and the language particular grammatical features are essential to be identified. Therefore, as for the identification and parameterization of the parametric variations between Turkish as default L1 and English as default L2 and the differences in grammatical features are obtained through the studies by Şeker (2015; 2016) and their revised versions (Şeker, 2019) in which corresponding English and Turkish grammatical structures are comprehensively compared and contrasted according to the MP are referred. The reference four parametric values and six grammatical features making up the target L2 English grammatical learning are as the following (Şeker, 2019):

Parametric Variations Between L1 Turkish and L2 English

1. Head Parameter

i. English is a 'head-first' language (i.e. for you).
ii. Turkish is a 'head-last' language (i.e. senin için).
you for

2. Null-Subject Pro Parameter

i. In English, Null- Subject (Pro) is not allowed (i.e. We play).

ii. In Turkish, Null- Subject (Pro) is allowed (i.e. Pro oynar-ız).
play-1PerPl

3. Null-Subject PRO Parameter

i. In English, pronominal possessors (PRO) are not allowed to be dropped (i.e. my house).

ii. In Turkish, pronominal possessors (PRO) are allowed to be dropped (i.e. PRO ev-im).
house-1PerSg

4. Null-Determiner Parameter

i. In English, Null-Determiner (Det) is not allowed (i.e. give me the book)

ii. In Turkish, Null-Determiner (Det) is allowed (i.e. kitab-ı bana ver)
book-aggr me give

Language Particular Grammatical Features for L1 Turkish and L2 English

1. Grammatical Feature of Prepositions/Postpositions (P)

"While prepositions in English have interpretable [ACC-Case] feature, postpositions in Turkish have interpretable [GEN-Case] feature" (i.e. benim için/for me).

my for

2. Grammatical Feature of Passive (PASS)

"While affixal PASS is verbal (i.e. [+V]) in Turkish, inflectional PASS is nominal (i.e. [+N]) in English" (i.e. yapıl-ır/is done).

done-3PerSg Present

3. Grammatical Feature of Complementiser (C)

"While C carries a que particle [i.e. mI] feature in Turkish, C carries a wh-operator [WH] feature in English"

4. Grammatical Feature of Complementiser (C)

"While the C in English main clauses carries Extended Projection Principle [EPP] feature, it does not carry [EPP] in Turkish."

(i.e. Pro Dün evde ne yap-tın?/**What did** you do at home?)

*yesterday home-Adessive Case **what** do-2PerSg Past*

(i.e. Pro Gittin mi?/Whether did you go?)

Go-2PerSg Past Que

5. Grammatical Feature of Infinite Complementiser (Fin)

"While the infinite C in Turkish complement clauses carries Extended Projection Principle [EPP] feature, it does not carry [EPP] in English."

(i.e. Dünya'nın yuvarlak olduğu/ that the world is round)

World-POSS round be-INF nominalizer

6. Grammatical Feature of Agreement

"While the Turkish T carries strong agreement features, the English T carries weak agreement features" (i.e. Ben bilir-im/I know).

I know-1PerSg Present

These four parametric variations and six grammatical features between L1 Turkish and L2 English constitute the target parametric values and new grammatical knowledge set for English Grammar for an L1 Turkish speaking L2 English learner. The rest only require lexical learning. In other words, the linguistic differences described above constitute the grammar of English for the Minimalist Method of Turkish Competence-Based English Language Teaching (TURCOBELT).

MINIMALIST APPROACH

Minimalism is described as a trend in any design or style in which the simplest and fewest elements are used to create the maximum effect. In architecture, it is regarded as the design where the subject is reduced to its necessary elements. Minimalism appears in linguistics as the economy of derivation and representation, abolishing superfluous elements in order to represent languages more universally but simpler, which is known as the Minimalist Program. As for this particular study, minimalism is not only a mode of investigation and a way of syntactic analyses for the identification of parametric variations between L1 and L2 for a competence based syllabus but also an approach to modelling of L2 cognitive learning and identifying the principles, learning strategies and teaching techniques of the method. Minimalism runs after necessity and simplicity, getting rid of unnecessary ones. In identifying what is necessary and what is not, minimalism rests on three basic criteria: simplicity, conceptual necessity and reduction. The notion of simplicity targets the

superfluous steps and elements in representations, trying to get rid of them. Boeckx (2006) cites Chomsky's notion that "the shorter grammar is the simpler and among equally short grammars, the simplest is that in which the average length of derivation of sentences is least" (p.8). Conceptual necessity, on the other hand, targets unnecessary descriptions, classifications or rules. It refers to "what appears to be necessary for understanding and questions whether all the others are essential and unavoidable components" (Boeckx, 2006:73). Reduction, as the third criterion, means reducing anything to its most basic function. It targets indirect operations, ways, activities or methods. In terms of the approach, the method of COBALT is minimalist particularly because it is established on the basis of the 'Minimalist Model' of language learning explaining the cognitive state of L2 learning reducing it to parameter setting between default L1 and L2 languages. It is minimalist also because it is in favor of simplicity for the syllabus design. The contents of the syllabus are identified on basis of grammatical learning targeting only a limited number of parametric variations and grammatical features also determined through the Minimalist Program of Chomsky (1991, 1993 and 1995) and regarding the rest as lexical learning between default L1 and L2. The sequence of the contents is designed according to bottom up merging operations (i.e. word phrases beginning from noun phrases to complementiser phrases). In addition, it is in favor of conceptual necessity for the grammar modules. The grammar modules are classified according to their function and usage rather than traditional grammar modules. Furthermore, it is in favor of reduction

in terms of its principles, learning strategies, and teaching activities. Learning strategies and teaching activities are based on parameter setting, grammatical learning and lexical learning which are regarded as the basic function of language acquisition. The course book design is also established on these minimalist principles, getting rid of superfluous descriptions, exercises and visual materials. The student's real experiences and individual interests as well as L1 make up the core material and theme of the COBALT classes.

COMPETENCE BASED LANGUAGE TEACHING (COBALT)

Competence-Based Language Teaching is an overall method of teaching suggesting an original syllabus, a course book prototype, learning strategies and teaching techniques all designed according to minimalist principles. It is particularly based on two learning strategies: grammatical and lexical learning. The former is a regarded as a kind of parameter setting targeting the new parametric values of L2 and the latter is regarded as lexicon development particularly targeting the learning of L2 counterparts of the L1 lexicon referring to the same realia. The method targets adult or young adult learners and the learner is not expected to set parameters from the input data by himself. Instead, he is assisted to guess the new value and set it for new language. Here, available L1 knowledge is the best realia or the course material to refer in COBALT classes since they are already there, in learners' mind. The teacher only needs to activate or allow students to recall it. The learner's own interests determine the target lexicon to be learned. Acquiring knowledge or setting the new parameters of the new language is regarded as a cognitive process for

the adult learners. Therefore, language is believed to be learned by the learner but not taught by the teacher. The teacher acts as a training coach organizing the input and reinforcement exercises leading to true parameter setting. The coach (i.e. teacher) or the learner is not idealist but pragmatist in terms of pronunciation or fluency, depending on the minimalist concerns such as simplicity and reduction. Native accent is tolerated and learners' L1 origin (i.e. genetic heritage) is taken into consideration since they are not born as native speakers. Therefore, it suggests a student-oriented class. Functional and natural acquisition order based on phrasal structures rather than thematic units based on communicative concerns are used to organize the classes. "It should be noted that parameter-setting follow some non-negligible degree of syllabus (prior structural assignment)" (Newmeyer, 2004, p. 212). "Whether or not one is assuming a parameter-setting model of acquisition, some things must be learned before others, and it is part of the task of language-acquisition research to determine exactly what the learning path is." (Holmberg and Roberts, 2007). Therefore, rather than thematic units made up of communicative concerns a natural order of structural units should be considered in syllabus design. Consequently, it begins with lexicon followed by merging modules in a bottom-up order. A new language is not of alien origin. The knowledge of the L2 is the remaining one after extracting the native. Hence, the target grammar requiring grammatical learning (i.e. parameter setting) is delayed as long as possible but the grammar requiring nothing but lexical learning is given priority. Languages are human origin and have common properties. "Whereas the acquisition

of a language is an unconscious natural process, learning a language is a conscious one. In the former, the student needs to take part in natural communicative situations as in the case of L1. In the latter, error correction and purposive learning is present" (Krashen, 1987, p.10). Error correction is a natural way of parameter setting after learners achieve the new parameter settings. As for classroom activities, communication in target language is not always possible in non-native countries except for the language classes. Therefore, in COBALT classes, rather than pair work or group work activities, individual oral or written performance in L2 is given priority. From this view, it follows a liberal and pragmatic path. In terms of lexical learning, bilingual or monolingual vocabulary lists are seen useless. The best way to improve lexicon is frequent exposure and looking up them for each time. Therefore, the language coach (i.e. the teacher) or the learners are expected not to take down the L1 counterparts of the target new vocabulary.

The Syllabus

Through the COBALT classes, the grammatical contents are introduced in terms of appropriateness, successiveness, and arbitrariness determined according to a limited number of parametric variations set for the target and the native or second language since "parameter-setting follows some non-negligible degree of syllabus (prior structural assignment)" (Newmeyer, 2004, p. 212). As stated by Holmberg and Roberts (2007), "whether or not one is assuming a parameter-setting model of acquisition, some things must be learned

before others, and it is part of the task of language-acquisition research to determine exactly what the learning path is." (p.443). Therefore, rather than thematic units made up of communicative concerns a natural order of structural units is suggested in syllabus design, beginning with lexicon followed by phrases merged in a bottom-up order. The target grammar requiring grammatical learning is delayed as long as possible but the grammar requiring nothing but lexical learning is given priority. Beginning with an inappropriate learning hierarchy and delaying what is to be taught first or foremost for communicative concerns make learning complex and confusing for learners. For example, the utterance 'what is your name?' carries English particular grammatical features such as *WH* and *EPP*, resulting in *wh-movement* and *auxiliary movement*. Instead, noun phrases with a noun merging with adjectives would be a good and logical start for an L1 Turkish learner since they are merged as in Turkish. This hierarchy of learning is also related to accessibility by Keenan (1972) who posits "a hierarchy of learning from most accessible, common and easy rules to those less accessible, rarely seen and more difficult rules between L1 and L2 languages" (p.445). Accordingly, "unmarked aspects of grammar are directly related to UG and form the core, whereas marked aspects are less directly related to UG. Markedness reflects the degree to which something is related to UG and, consequently, the degree to which it is learnable by the child through his/her grammatical competence" (Keenan, 1972: 445). That is, as claimed by Cook, "a child prefers to learn an 'unmarked' structure, or a universal principle, rather than a 'marked'

structure, or a language particular parameter." Eckmann (1977) in this context, found out that "FL learners should find those aspects of the L2 that are more marked in terms of accessibility the most difficult" (p.325). To illustrate, the question *What happened?* is more accessible than the question *How are you?* for an L1 Turkish speaker to produce since the former's Turkish counterpart *Ne oldu?* is composed of the same number and kind of lexical items (i.e. the question word *ne* (what) and the verb *ol* (happen)) of the same syntax (i.e. it starts with *Ne (What)* and followed by *ol-du* (happen-ed)) and of the same kind and number of morphological markers attached by functional categories (i.e. the past tense affix -du (-ed)) as in L2 English. On the other hand, the latter's Turkish counterpart *Nasılsın?* is composed of one lexical item (i.e. the question word *nasıl* (how)) with an affix (i.e. 2SgP Present affix -*sın*), whereas there are three lexical items (i.e. the question word *how*, the auxiliary *are* inflected in present tense and the 2SgP pronoun *you*), but no any affixal morpheme. In addition, in terms of principles and parameters, while the construction of *How are you?* Requires grammatical learning of *wh-operator* and *auxiliary* movement resulted from language particular grammatical features for L1 Turkish and L2 English, the construction of *what happened?* requires no new grammatical learning. However, in almost all English course books in Turkey (see Şeker, 2016), the target structure *How are you?* is presented in the first lesson due to communicative concerns, neglecting L1 competence. Chomsky (1981a) also comments on this issue and states: "we would expect the order of acquisition of structures in language

acquisition to reflect the structure of markedness in some respects, but there are many complicating factors; e.g. processes of maturation may be such as to permit certain unmarked structures to be manifested only relatively late in language acquisition, frequency effects may intervene, etc." (p.9). That is, more frequently used structures may be granted prior rank although they are of marked features as in the case of afore mentioned questions *What happened/Ne oldu?* and *How are you/ Nasılsın?* which are of different values in terms of markedness for an L1 Turkish speaking L2 English learner to produce. Consequently, not only with minimalist concerns but also with competence-based concerns, a sample syllabus designed by Şeker (2016) according to grammatical and lexical learning strategies based on parameter setting is given below in Table 1 in order to identify the course of COBALT classes. In this L1 Turkish competence based L2 English syllabus traditional grammar modules are sequenced in terms of phrasal modules in a bottom-up merging order, delaying marked structures until all unmarked structures are presented. Reference order in the table illustrates their original sequence in the currently available course books:

Table 1: A Sample L12 Turkish Competence Based L2 English Syllabus (Şeker, 2016: 105)

Order	Grammatical Contents	Reference Order	Grammatical Learning	Phrasal Modules
		Level I		
1	Singular and plural nouns	A1-3	*Non-Silent plural –s**	NP
2	Count/Non-count nouns	A2-11	-	NP
3	Quantifiers	A2-12	-	NP
4	Adjectives	A1-7	-	NP
5	Demonstrators	A2-1	-	NP
6	Comparative adjectives	A2-13	-	AP/ADVP
7	Superlative adjectives	A2-14	-	AP/ADVP
8	Adverbs of Degree	B1-8	-	AP/ADVP
9	Articles	A1-4	*head-first, overt lexical Ds*	DP
10	Possessive adjectives	A1-5	*non-Pro-drop subject*	DP
11	Possessive –s	A1-6	-	DP
12	Prepositions of Time and Place	A2-5/6, B1-17	*DV*	PP
13	Verb phrases	A2-7	-	VP
14	Adverbs of frequency	A1-12	-	VP
15	Adverbs of manner	A2-20	*Adjunct last**	VP
16	Adverbs of Time	B1-2	-	VP
17	Imperatives	A2-2	-	VP
18	Object pronouns	A1-16	-	VP
19	Prepositions of movement	B1-21, A2-3	[ACC-Case] *after prepositions*	vP
20	Let's	A2-3	*DV*	vP
21	Passive	B1-18	*nominal PASS*	PASSP
22	Affirmative and negative: be	A1-2	-	NegP
23	Affirmative and negative: verbs	A1-11, A2-2	*free Neg*	NegP
24	Continuous	A2-8/9, B1-3 B1-1, B2-1	-	AspP
25	Perfect	A2-17/18, A2-5, B1-5/7 B1-23	*Inflectional perfective verb form**	AspP
26	yet, just, already	B1-5	-	VP + AspP + TP
27	like + ... –ing	A1-20	-	NomP + VP
28	Gerund (verbs + V-ing)	B1-12	-	NomP + VP
		Level II		
1	Infinitives (verbs + to V)	B1-11	-	TP
2	Verbs + to + infinitives	A2-16	-	TP + VP
3	Verb be: am, is, are	A1-1/2	-	TP

4	Present simple: 1/2SgP, 1/2PlP	A1-8	-	TP
5	3SgP	A1-10	-	TP
6	Subject pronouns	A1-1	-	TP
7	There is/are	A1-18	-	TP
8	Present continuous	A2-8/9, B1-3	*Auxiliary insertion**	AspP + TP
9	Present continuous (fut.)	B1-3	-	AspP + TP
10	Present simple or present continuous?	A2-9	-	AspP + TP
11	Present simple (Negative) Be or do?	A1-2/11, A2-10	*weak T*	NegP + TP
12	Present Perfect	A2-17/18, A2-5, B1-5/7	-	AspP + TP
13	Past simple: be	A1-15	-	TP
14	Past Simple: regular	A1-17	-	TP
15	Past simple: irregular	A1-16	-	TP
16	Past continuous	B1-1	-	AspP + TP
17	Present perfect or past simple?	A2-24	-	AspP + TP
18	Past perfect	B1-23	-	AspP + TP
19	Simple Future	B1-9/10	*DV*	TP
20	Simple Future (negative)	B1-10	-	NegP-TP
21	Can (ability)	A1-14	-	TP
22	Necessity	B1-13	-	TP
23	Lack of necessity	B1-13	-	NegP + TP
24	Advisability	B1-14	-	TP
25	Uncertainty	B1-20	-	TP
26	Modals of deduction	B2-2	-	TP
27	Past habitual	B1-19	-	TP
28	be going to	A1-21	*DV*	TP + AspP + TP
29	Present Perfect Continuous	B2-1	-	AspP + TP
30	Questions without auxiliaries	B1-25	-	TP
		Level III		
1	Present simple, Past Simple Simple Future (Interrogative)	A1-9, A1-16, B1-10	*overt lexical C*	CP
2	Word order in questions	A1-13, A2-4	*[WH] attraction*	CP
3	Reported speech (declarative)	B1-24	*DV*	CP
4	Reported speech (questions)	B2-3	-	CP
5	Relative clauses	B1-4, B2-8	-	CP

6	Superlatives (+ ever + present perfect)	B1-7	-	CP
7	First Conditional and future time	B1-15	*DV*	CP
8	Second Conditional	B1-16	-	CP
9	Third Conditional	B2-4	-	CP
10	Conjunctions (Connectors)	B1-2	-	&P

* : Language particular grammatical properties

DV: Derivational Variation

Learning Strategies and Teaching Techniques

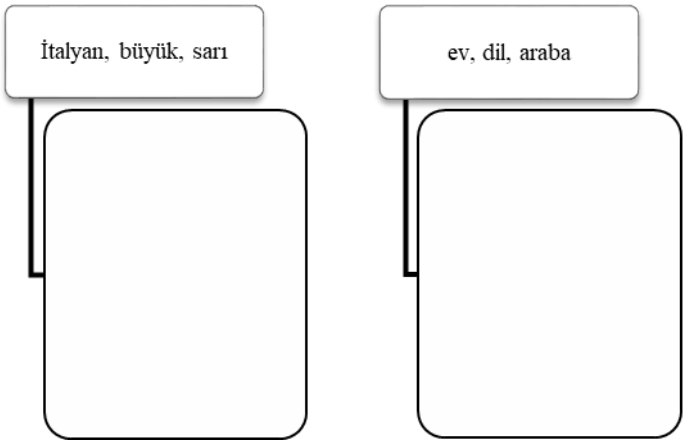
COBALT suggests some special activities for the setting of the parameters of the new language introduced based on the learning strategies listed below:

Strategy 1: Linguistic Awareness

Languages are not regarded as in isolation but as a part of the whole language system that is possessed. Therefore, learners should be aware of the properties of the new language under study.

Related Teaching Technique: Categorization

Asking learners to categorize the new English lexical items according to the Turkish reference words given below:



Strategy 2: Pidginization (L1 Transfer)

Depending on the properties of the target L2, the learner refers to his linguistic repertoire and transfer grammar from his L1 competence. This transfer is encouraged rather than embarrassed or ignored.

Related Teaching Technique: Combining the Words into phrases

Asking learners to try to put the given target lexical items into meaningful phrases relying on L1 knowledge but without providing them with any knowledge of the new grammar, correcting errors or giving feedback:

1. air, fresh
2. cold, water, some
3. house, big, my
4. this, with, student

..... ……..

..... ……..

Then, if L1 Turkish grammar is transferred, the answer is expected to be:

1. fresh air
2. some cold water
3. my big house
4. this student *with* (due to the head-last parameter in L1 grammar)

Strategy 3: Parameter Setting

Based on the target L2 input, learners are allowed to set target parameters themselves through cognitive ways such as comparing and contrasting.

Related Teaching Technique 1: Analyzing the Input

Asking learners to read the given sample phrase structures in the target language and then to check and compare them with the ones they uttered through their L1 knowledge in the previous exercise. They may also be suggested to experience similar phrasal structures in authentic written material or audio dictionaries, etc.

low salary
for foreign aid
in the nineteenth century
as a second language

Then the learner is expected to correct his/her earlier trial *this student with* and set the new head parameter as head-initial instead of

earlier head-last, uttering *with this student*. S/he also receives reinforcement for the correct ones having no parametric variations but uttered through their L1. If not, the teacher's guidance interferes.

Related Teaching Technique 2: Setting the New Grammar

Asking learners to observe the differences and similarities between L1 and L2 through comparing and contrasting and set the new grammar by themselves or through guiding by the teacher.

düşük maaş	low salary
dış yardım **için**	**for** foreign aid
on dokuzuncu yüzyıl**-da**	**in** the nineteenth century
(senin) arkadaş**-ın ile**	**with your** friend

Strategy 4: Code-Mixing (Matrix Model)

According to this strategy, the learner generates a matrix language, choosing the overall syntax and the morphemes from one linguistic system (especially from the target language), while choosing the vocabulary from another (especially from the reference language) (Myers-Scotton, 2002).

Related Teaching Technique: Exercising the New Settings (L1 lexicon but L2 grammar)

Asking students to use some native words as to the new grammar settings in target language:

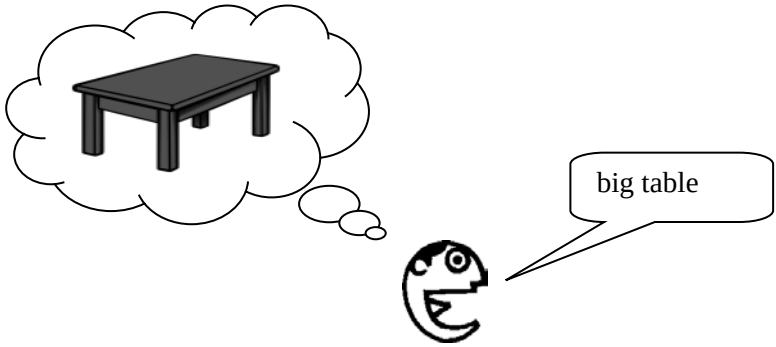
arkadaşlar ile benim	*ile benim arkadaşlar*
öğrenci birkaç	……..…….…….
ders için	……..……..
ev büyük	……..……..

Strategy 5: Code-Switching

Code-switching is switching instantaneously from one grammar to another, one lexicon to another, even one pronunciation to another (Muysken, 2000). It requires changing from one linguistic system to another during same context. “Code-Switching is a normal ability of L2 users in real life situations and can be utilised even by children as young as two years old”, as is code-mixing (Genesee, 2003).

Related Teaching Technique: Purposive Speaking

Asking learners to produce phrases (noun, determiner or prepositional phrases in L2 as much as possible (giving examples in L1 like *büyük ev, öğrenciler için, benim evim*) and fill the other communicative gaps, if any, through the L1. This technique is also related to the Strategy 1 since it helps learners to arise fluency, self-confidence and linguistic awareness.



The Course Book

As an original method COBALT, of course, also requires an original course book designed through minimalist principles in which the grammatical contents are introduced in terms of appropriateness, successiveness, and arbitrariness determined according to a limited number of parametric variations set for L1 Turkish and L2 English languages. For this purpose, a competence-based English course book was designed under the scope of the 3001 Research and Development project titled 'Developing a Grammatical Competence-Based Foreign Language Teaching Model and a Turkish Competence-Based English Course Book Prototype (2017-2019)', allowing accessibility to Universal Grammar during parameter setting process and supported by Scientific and Technological Research Council of Turkey (TUBITAK). This course book prototype is presented as a model course book designed on basis of minimalist concerns and focuses on parameter setting between L1 Turkish and L2 English for COBALT. Şeker (2016) analyzed the grammar modules in the syllabus of some

English course books in terms of phrasal structures and parametric variations and found that of the total 63 grammar modules, 44 of them are unmarked, thus requiring lexical learning, whereas 19 of them are marked which require grammatical learning. Accordingly, while the frequency of the marked structures was found 31%, the frequency of the unmarked structures was 69%, which also means grammatical learning constitutes only about 31% of total 63 traditional English grammar modules in the course books (p.107). However, in the available course books and syllabuses followed in the programs carried out in secondary or higher education institutions such as schools or universities predominantly responsible for foreign language teaching in Turkish Education System were seen ignoring either universal principles or parametric variations between languages and language particular properties in several studies (see Şeker, 2017a and 2019). The grammar presentation styles of these target references were seen inaccessible in terms of sequence and accessibility to UG and ignoring UG principles and parameters between L1 Turkish and L2 English context. This case was also observed in L2 Turkish course books designed for foreign students (Şeker, 2017b). The grammar modules in the selected Turkish course books were not sufficiently accessible in terms of Universal Grammar for foreign students with different native languages due to the fact that the thematic units were ordered according to communicative concerns but not the universal principles and parameters. It was also found that the thematic units contained modules that require students to learn multiple grammatical subjects, which hinders access to ED, and simply consolidates

grammatical learning. However, in a competence-based English course book designed on basis of an original syllabus, while the functional structures accessible through Turkish grammatical competence, or universal grammar modules, are introduced as a special glossary, the inaccessible ones, or parameters, are introduced through original learning strategies and teaching activities targeting parameter setting as described in previous parts of this study. The first unit of the book prototype titled “Setting English for Turkish Speaking Learners” is also attached to the appendix of this chapter.

CONCLUSION

This original study aiming to introduce a Turkish Competence-Based Language Teaching Method describes an overall picture of a minimalist method of teaching. After the statement of the problem and the aim of the study in the introduction part, the theoretical background including linguistic theories such as UG, PPT, MP and the cognitive ideas such as learning models on which our methodological suggestions are based were revised. The COBALT was introduced as a result of a five-year study beginning from identification of the parametric variations between Turkish and English Languages in terms of Minimalist Program, designing a competence based syllabus for L1 Turkish learners of L2 English, and the ideas and studies based on the data obtained from a 3001 Research and Development project titled 'Developing a Grammatical Competence-Based Foreign Language Teaching Model and a Turkish Competence-Based English Course Book Prototype', allowing accessibility to Universal Grammar during parameter setting process and supported by Scientific and Technological Research Council of Turkey (TUBITAK). Then, the minimalist approach dominating the approach through which the COBALT is designed was explained. After the theoretical background and the approach, the last part of the study covered the body of the study in which the basic learning strategies and teaching techniques, as well as course book and syllabus design of the method were described. Minimalism is an approach to modelling of L2 cognitive learning and identifying the principles, learning strategies and teaching techniques of the COBALT. The method of COBALT is

minimalist not only since it is in favor of simplicity for the syllabus design but also since it is in favor of conceptual necessity for the grammar modules. Furthermore, it is also reductive in terms of its principles, learning strategies, and teaching activities. The course book design is also established on these minimalist principles, getting rid of superfluous descriptions, exercises and visual materials. A competence-based English course book titled “Setting English for Turkish Speaking Learners” designed under the scope of the project, allowing accessibility to Universal Grammar during parameter setting process was introduced as a prototype course book designed on basis of minimalist concerns and focuses on parameter setting between L1 Turkish and L2 English for COBALT. In addition, a sample syllabus designed according to grammatical and lexical learning strategies based on parameter setting was also introduced in order to identify the course of classes. In this L1 Turkish competence based L2 English syllabus traditional grammar modules are sequenced in terms of phrasal modules in a bottom-up merging order, delaying marked structures until all unmarked structures are presented. Rather than thematic units made up of communicative concerns, a natural order of structural units was suggested in syllabus design, beginning with lexicon followed by phrases merged in a bottom-up order. As for the identification and parameterization of the parametric variations between Turkish as L1 and English as L2 and the differences in grammatical features, previous studies in which corresponding English and Turkish grammatical structures are comprehensively compared and contrasted according to the MP were referred. The L2

English grammar requiring grammatical learning was taken as the four parametric values and six grammatical features identified in those previous studies. The rest was identified as lexical learning. The student's L1, their real experiences and individual interests were also defined as the core material and theme of the COBALT classes. Furthermore, some original teaching activities such as categorization combining words into phrases, analyzing the input, setting the new grammar, and exercising the new settings were associated with the learning strategies such as linguistic awareness, Pidginization, parameter setting, code-mixing (or matrix model), and code-switching.

Consequently, this study which aims to develop a Minimalist Method of teaching for L1 Turkish speaking learners via getting rid of superfluous explanations and rules for the universal properties and similar parametric values and focusing on setting new parametric values between L1 Turkish and L2 English is a complete methodological study in that it introduces an overall picture of an original teaching method with original principles, learning strategies and techniques based on an original minimalist approach, model of learning and an original syllabus. It contributes not only L1 Turkish L2 English practices but also to teaching of other languages with different L1 origin. For further studies, COBALT requires methodological classroom studies and longitudinal case studies in terms of its efficacy and fertility.

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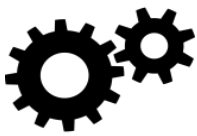
APPENDIX I. Setting English: A Competence-Based English Course Book Prototype, Unit 1

Setting English

for Turkish Speaking Learners



Türkçe Dilbilgisel Edinci Temelli

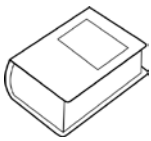
İNGİLİZCE

Emrullah ŞEKER

UNIT 1

the second language

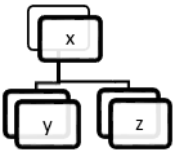
Lesson 1.1A

second language   

Let's Learn Some Vocabulary

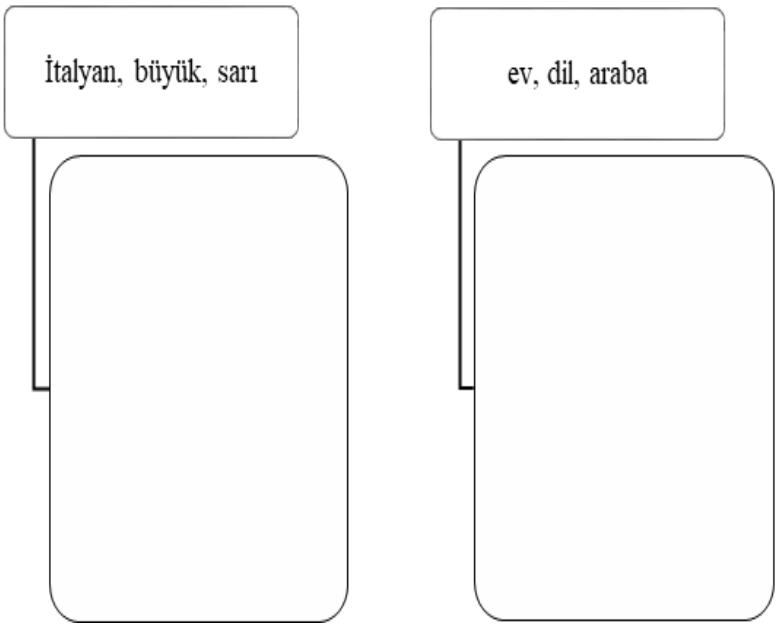
Gündelik yaşantımızda kullandığımız araç ve gereçlerin adlarının ve bunların özelliklerinin İngilizce karşılıklarını ve doğru sesletimlerini öğrenmek için sözlüğe bakınız (Google görseller, Google çeviri, elektronik veya basılı sözlük). Bulduğunuz İngilizce sözcükleri aşağıda boş bırakılan alana yazınız:

……...



Let's Categorize the Words

Yukarıdaki İngilizce sözcükleri aşağıda örnek olarak verilen Türkçe gruplandırmaya benzer şekilde iki ayrı gruba ayırınız:



Let's Improve the Lexicon

Aşağıda listeler halinde verilen İngilizce sözcükleri çalışınız ve bu sözcüklerle aynı görev ve özelliğe sahip benzer başka sözcükleri ve bunların doğru sesletimlerini öğrenmek için sözlüğe bakınız:

yellow
black
white
blue
green
one
two
three
four
eleven
twenty-one
fifty-nine
one hundred
one thousand
six thousand
seven hundred

1st ; first
2nd ; second
3rd ; third
4th ; fourth
5th ; fifth
6th ; sixth
11th ; eleventh
12th ; twelfth
13th ; thirteenth
18th ; eighteenth
21st ; twenty first
22nd ; twenty second
23rd ; twenty third
24th ; twenty fourth
59th ; fifty ninth
110th ; one hundredth

Lesson 1.1B

Let's Combine the Words

Yukarıda öğrendiğiniz İngilizce sözcükleri anlamlı sözcük grupları oluşturacak şekilde ikişerli olarak birleştirmeye çalışınız:

..... ……..
..... ……..
..... ……..
..... ……..
..... ……..
..... ……..
..... ……..

..... ……..
..... ……..
..... ……..
..... ……..
..... ……..
..... ……..
..... ……..

Let's Analyse the Samples

Aşağıda verilen İngilizce örnekleri inceleyerek sözcük gruplarının kuruluşu esnasında ortaya çıkan biçimsel özelliklere dikkat ediniz ve yukarıdaki alıştırmada oluşturmaya çalıştığınız söz gruplarını bu örneklere uygun şekilde yeniden düzenleyiniz:

low salary	American country	red pencil
foreign aid	English literature	ground movement
nineteenth century	African writer	plant category
second language	famous people	whale oil
political agreement	another city	

Let's Set the New Grammar

Türkçe dilbilgisine göre oluşturulan Türkçe sözcük grupları ile İngilizce dilbilgisine göre oluşturulan sözcük grupları aşağıda karşılaştırmalı olarak verilmiş ve ortaya çıkan biçimsel farklılıklar yeni dilbilgisi olarak yeniden tanımlanmıştır.

Accessible Form

Turkish Grammar

düşük maaş
dış yardım
on dokuzuncu yüzyıl
ikinci dil
politik anlaşma
Amerikan ülkesi
İngiliz edebiyatı
Afrikalı yazar
ünlü insanlar
bir başka şehir
kırmızı kalem
low salary
foreign aid

New Form

English Grammar

nineteenth century
second language
political agreement
American country
English literature
African writer
famous people
another city
red pencil

Let's Exercise the New Settings

1. Aşağıda verilen Türkçe sözcükleri İngilizce dilbilgisi biçimleriyle kullanarak sözcük grupları oluşturunuz.

okul	tarih	*okul bahçe*
ders	fincan	
……..…….		
el	zaman	
……..……..		
kahve	bahçe	
……..……..		
yolcu	çanta	
……..……..		
oyun	uçak	
……..……..		
başvuru	kitap	
……..……..		

2. Aşağıdaki sözcük ya da sözcük gruplarını boş bırakılan yere parantez içinde verilen ifadenin uygun şeklini kullanarak tekrar yazınız.

a. school (bag) *school bag*

b. old (friend)

……..……..

c. famous (singer)

……..……..

d. sixteenth (century)

…….…….....

e. course (book)

……..……..

f. new (agreement)

……..……..

3. Aşağıda verilen İngilizce sözcükleri birer kez kullanarak anlamlı söz grupları oluşturunuz.

famous	literature
American	time
course	sky
free	writer
blue	book

a) *blue sky*

b) …….

c) …….

d) …….

e) …….

Yukarıda verilen alıştırmalar içinde geçen sözcüklerin anlam ve sesletimleri için sözlüğe başvurunuz!

Lesson 1.1B

Let's Read

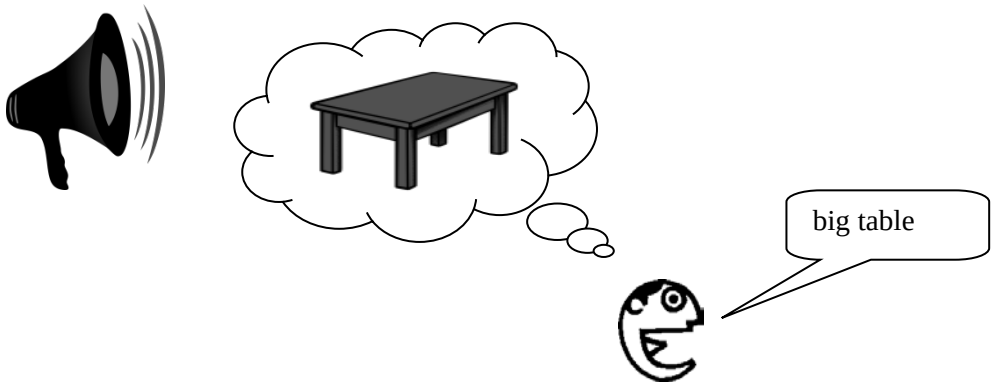
Aşağıda verilen İngilizce sözcük gruplarını okuyunuz. Bilmediğiniz sözcüklerin anlamlarını ve doğru sesletimlerini öğrenmek için sözlüğe bakınız.

RAPUNZEL[3]

Once upon a time in a faraway land there lived a cobbler and his wife. They desperately wanted to have children, but however they tried, it was all in vain. These people lived in a little house next to a mansion, and one of their bedroom windows looked out over the wall of the adjoining property, into an enormous garden, where flowers and vegetables grew side by side in abundance. But nobody ever visited the garden, it was rumoured that the owner of the house, an old woman, was in fact a terrible witch, who possessed terrible dark powers, and as a consequence everybody in the little town avoided contact with her.

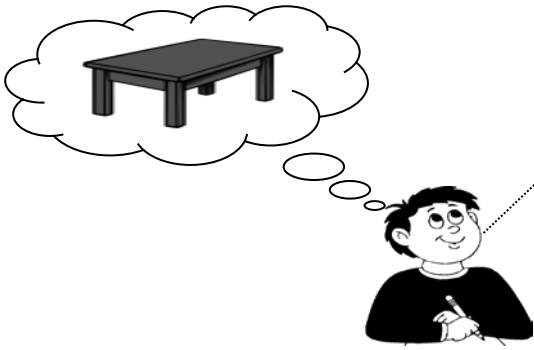
[3]Grimm Brothers re-told by Frans Timmermans downloaded from http://fairytalesoftheworld.com/quick-reads/ rapunzel / on 8 Nov, 2015

Let's Speak



Çevrenizdeki varlıkları nitel özellikleri ile belirtiniz. Üreteceğiniz söz grupları için kullanılacak varlıkların veya kavramların İngilizcedeki karşılıkları ve bunların sesletimleri için sözlüğe başvurunuz.

Let’s Write



Ev veya büronuzdaki malzemeleri renk, yaş, sayı ve büyüklük gibi nitel ve nicel özellikleri ile belirtiniz. Ayrıca aşağıda verilen sayıların okunuşlarını yazınız. Üreteceğiniz söz grupları için kullanılacak varlıkların veya kavramların İngilizcedeki karşılıkları ve bunların sesletimleri için sözlüğe başvurunuz.

……...……

……

..……

346.000 : ……

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CHAPTER 6:

ENERGY CONSUMPTION AND ECONOMIC GROWTH: E7 COUNTRIES

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INTRODUCTION

Energy had become one of the basic resources that humankind used to continue of their lives since their existences and to satisfy the need to increase their life quality. It has been seen that energy plays a cumulative role in lives of humankind as parallel to changes of their needs and there is a very tight connection between energy consumption and development of civilization. Energy is the most important factor to determine the power of countries has been accepted as an indicator of development levels of countries. National security, social welfare level and economic power of a country is directly in relationship with energy reserves that it holds. Energy consumption values of countries have given information about that country's social-cultural structure, economic status and consumption habits.

Energy resources have taken in the first place of the basic inputs that are compulsory for a country to develop as economically, to improve and for being continuous and long-term of this development. Energy resources and values that societies used have given information about these societies' development level, economic status and consumption habits. Therefore, energy consumption and economic growth are facts that they are in interaction to each other. Since energy is needed for every space of life such as industrial production, lightning, heating, transportation and houses, spending daily life is impossible without energy. For this reason, basic reason that economic wars happened in the world is the purpose to be superior to have energy resources. In especially developing countries, energy consumption has helped to these countries to be developed besides making economic

growth real. Hence, energy consumption had also shown rise by increasing of tertiary sector weight in economy together with increasing of civilization and development.

In last years, an increase had happened about examining the relation between energy consumption and economic growth in economic analysis by becoming an important input of energy for economic growth depending on industrialization and civilization. The purpose of researches in this direction is to understand which direction and how energy policies that will be applied as a result of analyzes will affect economies of countries.

Primary objective of this search is to examine the relation between energy consumption and economic growth in E-7 Countries (China, India, Brazil, Russia; Indonesia, Mexico and Turkey) by using data related to era of 1995 and 2017 with the help of panel data analysis. For that purpose, it had been firstly helped from Levin, Lin & Chu (2002), Fisher, Philips & Perron and Fisher ADF unit root tests to determine the stabilities of present variables. After it had been found that variables are stable from first degree, it had been applied to Johansen Cointegration test to examine long-term relation between variables, cointegration relation was found between series and cointegration coefficients had been evaluated on the basis of country. Then, Dumitrescu-Hurlin Panel causality test had been applied to reveal the causality relation between series and it had been determined that there is unidirectional causality from economic growth to energy consumption as a result.

1. LITERATURE RESEARCH

In literature, it had been observed that searches which examine the energy consumption and economic growth are in dense. Increasing the importance of energy consumption in terms of strategic policies of countries had caused increase in researches about this subject. Especially after end of 1970s, interest on this subject increased. More various and unique studies may have been achieved with economic and econometric techniques that are developed in recent years.

Energy consumption and economic growth relation had been deeply argued in terms of different country groups or country in literature. The purpose of evaluating the relation between energy consumption and economic growth is to enable that policy makers make several suggestions of these results. In this context, it had been placing to national and international studies that examine the relation between energy consumption and economic growth in below Table 1.

Table 1. Studies on the Relationship between Energy Consumption and Economic Growth

Writers	Period/Countries	Method	Results
Kraft and Kraft (1978)	1947-1974 America	Sims Technique	Economic Growth → Energy consumption
Akarca and Long (1980)	1973-1978 America	Granger Causality	No relationship
Yu and Huwang (1984)	1947-1979 America	Sims Technique	No causality relationship
Cheng (1999)	India	Granger Causality, Cointegration, Error Correction Model	Economic Growth → Energy Consumption
Altınay and Karagöl (2005)	1950-2000 Turkey	Causality Test	Electricity Consumption → Income
Şengül and Tuncer (2006)	1960-2000 Turkey	VAR Analysis	Energy Consumption → GDP
Jobert and Karanfil (2007)	1960-2003 Turkey	Johansen Cointegration Test	No relationship
Karagöl, Erbaykal and Ertuğrul (2007)	1974-2004 Turkey	Boundary Test Approach	Positive Relationship
Karanfil (2008)	1970-2005 Turkey	Granger Causality	Revenue → Energy Consumption
Mucuk and Uysal (2009)	1960-2006 Turkey	Effect-Response Functions, Variance Separation	Energy consumption → Economic growth
Odhiambo (2009)	1971-2006 Tanzania	Boundary Test Approach, Granger Causality	Energy Consumption → Economic Growth
Payne (2009)	1949-2006 America	Toda -Yamamoto Causality	No relationship
Aydın (2010)	1980-2014 Turkey	OLS	Positive Relationship
Özata (2010)	1970-2008 Turkey	Granger Causality, Vector Error Correction Model	GNP → Energy Consumption
Tsani (2010)	1960-2006 Greece	Toda -Yamamoto Causality	Energy Consumption → GDP
Yalta (2011)	1950-2006 Turkey	Cointegration Test	Neutral Relationship
Çetin and Şeker (2012)	1970-2009 Turkey	Johansen-Juselius, Stock Watson Cointegration, Toda	No relationship

		-Yamamoto Causality	
Iyke (2013)	1971-2011 Nigeria	VECM	Long-term effect
Omri (2013)	1990-2001 MENA Countries	Panel Data Analysis	Energy Consumption → Economic Growth
Salamaliki and Venetis (2013)	G-7 Countries	Multiple Horizontal Causality Test, Sequential Causality	GDP → Energy Consumption
Shahbaz, Khan and Tahir (2013)	1971-2011 China	ARDL	Energy Consumption → Economic Growth
Şahbaz and Yanar (2013)	1970-2010 Turkey	Granger Causality	GDP → Energy Consumption
Wang, Chang and Chia (2013)	1980-2010 OECD Countries	FMOLS, DOLS	Positive Relationship
Mohammadi and Parvaresh (2014)	1980-2007 14 OPEC Countries	Panel Unit Root Tests	Energy Consumption → Output
Araç and Hasanov (2014)	1960-2010 Turkey	Generalized Impact Response	Positive output shocks have an impact on energy consumption.
Husaini and Lean (2015)	1978-2011 Malaysia	Granger Causality	Electricity Consumption → Output
Uçan et al. (2016)	1995-2015 Selected EU Countries and Turkey	Panel Data Analysis Pedroni cointegration	Energy Consumption ↔ Economic Growth
Usta and Berber (2017)	1970-2012 Turkey	Toda -Yamamoto Causality	Energy Consumption ↔ Economic Growth
Ballı et al. (2018)	1992-2013 CIS Countries	Adjusted EKK Dumitrescu Hurlin Panel Causality	Energy Consumption ↔ Economic Growth
Nyasha et al. (2018)	1971-2013 Ethiopia	ARDL Bound Test Granger Causality Test	Economic Growth → Energy Consumption

Not: (↔) bi-directional causality, (→) one-way causality.

When national and international studies were analyzed, it had been seen that energy consumption affected on economic growth in almost all of them. These effects can be unidirectional as well as they can be bidirectional means that it is from economic growth to energy consumption and from energy consumption to economic growth. Any relation could have not been found in analyzed only four studies.

2. AMPIRICAL ANALYSIS

In this study, the relationship between energy consumption and economic growth in E-7[3] countries in the period of 1995-2017 was investigated by panel data analysis. Variables that are taken in model have been shown in Table 2.

$$\text{lnpcgdp}_{it} = \alpha_{it} + \beta_1 \text{lnenergy}_{it} + e_{it} \quad (1)$$

Table 2. Variables and Sources Used in Analysis

Variables	Using Variables	Source
lnpcgdp	GDP per capita (constant prices 2010 US $)	WDI (World Bank)
lnenergy	Energy consumption (per person)	WDI (World Bank)

Panel unit root tests had been used firstly for variables which are used in analysis and then coefficients were interpreted with cointegration estimators after cointegration test was applied. After that, causality relation between variables had been examined by the help of Dumitrescu Hurlin Causality Test.

2.1. Panel Unit Root Tests

The existence of unit root between series had been examined by the help of Levin, Lin & Chu (2002), Fisher, Philips & Perron and Fisher ADF test. While the existence of unit root between series had

[3] China, India, Brazil, Russia, Indonesia, Mexico, Turkey

been analyzed by three different panel unit root tests, unit root test belonging to series have been shown in following Table 3.

Table 3. Panel Unit Root Test Results

Level	**Levin, Lin & Chu**		**Fisher, Philips &**		**Fisher ADF Test**	
Variables	Stat.	Prob.	Stat.	Prob.	Stat.	Prob.
lnpcgdp	-0.248	0.402	6.508	0.952	25.197	0.982
lnenergy	0.490	0.688	4.341	0.993	3.753	0.996
First Differenc						
lnpcgdp	-3.198	0.000***	52.018	0.000***	32.434	0.000***
lnenergy	-4.079	0.000***	138.655	0.000***	54.816	0.000***

Note: *** indicates 1% significance level**.**

When partaking tests in Table 3 were examined separately, it has been seen that variables are not stable in level but they become stable when first differences were taken in each three tests. Therefore, it had been that variables which become stable in their first differences do not include unit root. As a result of that all of the series become stable in I(1) level, it enables to use Johansen panel cointegration test in determination of long term relation between series.

2.2. Panel Cointegration Test

Existence of long-term relation between variables had been determined with cointegration analyzes. As a result of panel unit root tests, cointegration analysis that based on assumption of that all series are integrated from first degree has been applied to analyze the relation between series by using Johansen Fisher Panel Cointegration test

Table 4. Lag Length Criteria Results

Lag Length	LogL	LR	FPE	AIC	SC	HQ
0	-151.984	NA	0.06439	2.93303	2.98358	2.95351
1	427.366	1125.59	1.12e-0	-8.02602	-7.87436	-7.96457
2	444.152	31.9737 *	8.78e-0*	-8.26957*	-8.0168*	-8.1671*

Johansen cointegration test is sensitive to lag length. So, lag length of models had been defined with "lag length criteria". While making this finding, it is important that criteria defines the minimum value. Therefore, it had been decided that lag length is 2. The reason for choosing this length is that criteria which defines the minimum value among all information criteria (Akaike AIC, Schwarz SC and Hannan-Quinn HQ) is Akaike information criteria as seen from Table 4.

Table 5. Panel Cointegration Test Results

Johansen Fisher Panel Cointegration Test				
Null Hypothesis	Fisher Statistic Constructed from Trace Test	Probability	Fisher Statistic Constructed from Maximum Eigenvalue Test	Probability
None	51.18	0.000***	45.53	0.000***
At most 1	25.34	0.031***	25.34	0.031*

Note: ***, * indicates 1% and 10% respectively.

According to Johansen Panel Cointegration test that searches the long-term relation between energy consumption and economic growth, H_1 hypothesis (there is cointegration between series) had been accepted while H_0 hypothesis (there is not cointegration between series) is

rejected. Hence, co-movement between economic growth and energy consumption is the subject in E-7 countries. It had been concluded that there is long term relation between variables.

After cointegration relation was found between variables, Full Modified Ordinary Least Square FMOLS method had been used to estimate unbiased coefficients of this relationship.

Table 6. Panel FMOLS Results

lnenergy	**FMOLS**		
Countries	**Coefficient**	**t-statistic**	**Probability**
China	1.430	20.610	0.000***
India	1.842	23.313	0.000***
Brazil	0.753	6.817	0.000***
Russia	2.697	0.300	0.000***
Indonesia	2.172	6.594	0.000***
Mexican	0.421	1.486	0.152
Turkey	1.473	17.510	0.000***
Panel	1.509	22.007	0.000***

Note: *** indicates 1% significance level.

When panel FMOLS test results related to the effect of energy consumption on economic growth were evaluated as country by country, coefficient is positive and statically significant in all of the countries except Mexico. Russia is the country that has the maximum coefficient among these countries. Then, Indonesia and India come after it, respectively. Country that has the minimum elasticity coefficient as statically is Brazil. This situation has causes that increase as 1% in energy consumption makes increase as 2.697% in economic growth of

Russia. When it is looked as general of panel, an increase as one unit happening in energy consumption have created an increase as 1.509% on economic growths of countries in E-7 countries.

2.3. Panel Causality Test

Causality relation between economic growth and energy consumption had been examined by the help of Dumitrescu-Hurlin panel causality test.

Table 7. Dumitrescu-Hurlin Panel Causality Test Results

Null Hypothesis	W Statistics	Z-bar Statistics	Probability Value
lnenergy is not the cause of lnpcgdp.	3.3902	1.1072	0.2682
lnpcgdp is not the cause of lnenergy.	4.4813	2.2010	0.0277**

Note: ** indicates 5% significance level, respectively.

Panel causality test results have been given in Table 7. According to this table, while causality was not found from energy consumption to economic growth, it had been established that the reason of economic growth is the energy consumption.

3. CONCLUSION

Factor that has a say in happening of social welfare and industrial production in aimed level is the energy. Since energy is in every area of life, covering the energy demand is really important.

The purpose of this research is to analyze how and which direction energy consumption has affected on economic growths of the countries that are known as E-7 countries (China, India, Brazil, Russia, Indonesia, Mexico and Turkey). For this purpose, energy consumption had been analyzed by using gross national products data of countries that are in the study in between 1995 and 2017 by the help of panel data analysis. In the study, firstly the existence of unit root tests in variables had been searched by the help of Levin, Lin & Chu (2002), Fisher, Philips & Perron and Fisher ADF unit root tests. After it had been found that variables are stable from first degree, Johansen Cointegration test was used to examine the long-term relation between variables, it had been found that there is cointegration relation between series and cointegration coefficients had been evaluated in terms of countries. When it is looked as general of panel, an increase as one unit in energy consumption in E-7 countries have created an increase as 1.509% on economic growth of these countries. When viewed from this aspect, making energy policies that will be applied on the present countries more efficient is going to increase competing of these countries in international arena. These countries that import most of the energy needs should be able to provide their own energy needs.

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CHAPTER 7:

IMPACT TO ECONOMIC CONJECTURE OF DEVELOPMENTS IN EDUCATION LEVEL IN TURKEY: ARDL ANALYSIS

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1. INTRODUCTION

Education has an important role in the development of countries. On the one hand, while fulfilling the function of providing workforce in the quality and quantity needed in the development process; on the other hand, it contributes to follow-up, development and production of modern production technologies with the function of producing and disseminating information. Increasing the productivity of the workforce as the level of education increases; it affects the competitiveness of countries positively and facilitates their opening to the outside. Differences in education level are among the main reasons for the difference in economic performance between developed and developing countries.

On one hand while education gives to peopleinformation,on the other handgain to ability produce, understand and interpret information while giving information. Education given to members of society is an investment in human capital. Because through education, people become more active throughout life. Since education is an investment on human beings, it is different from other investments (Kerimoğlu, 2003: 30-41).

The most important measure of being a strong and respected country in the international arena is economy which shows a healthy and stable development.In the realization of this, the active participation of human capital in the production process together with the country's resources carries great importance. It is necessary to monitor compatible employment and vocational training policies and

to develop sufficient number and quality labor force in parallel with the labor needs of the economy (Acar, 2008: 125-126).

In developed countries, one of the factors that determine the extent of development is the priority given to educational services. The reason why educational services are so important is that they bring out important social benefits and positive externalities to the society as a result of these services are implemented in appropriate conditions (Üstünel, 2000: 35-38).

Enhanced human capital will make significant contributions to economic growth as it will increase productivity both directly and indirectly. The most important reason for the differences between the countries in terms of economics is the shortcomings in the production and the lack of quality.There is a need for a knowledgeable society in development and a skilled workforce.The labor force, which is the main factor of development, needs to be equipped with awareness, development and knowledge skills (Erdoğdu, 2002: 321-322). The importance of human capital is strongly emphasized in internal growth models. The concept of human capital constitutes the main source of growth and it is used to express all of concepts the level of education, skills, skills, knowledge, health status and place of social relations of individuals or society etc (Tansel and Güngör, 1997: 14).

Investments made in line with the importance given to education have a positive impact on economic growth. This impact also contributes greatly to economic development processes. There are classical growth and neo-classical growth theories and internal

growth theories in the context of external growth theories in economic growth (Turan, 2008: 18).

According to classical growth theories led by classical economists such as Smith and Ricardo, savings and capital accumulation are considered high due to the high profits. While the speed of technological progress in industry is high, the speed of technological progress in agriculture is very low. Although wages may vary in short-term depending on labor supply and demand, they will tend to stay at a minimum wage level in the long run. The economy constantly works in full competition and full employment conditions. As labor and capital change, the soil remains stationary. Capital is more used for wage payments. Technology is fixed in both industry and agriculture (Hiç, 1994: 15-17).

From the 1950s to the mid-1980s, according to the neo-classical growth theories that have been effective, it seems at the forefront of technological progress with the increase in labor force in long-term and continuous growth. However, both factors were seen as extrinsic factors. According to the basic approaches in neo-classical growth theories, the amount of technical knowledge that is perceived as a public good in all economies and which has no acquisition cost was the same in all countries. If the amount of technical information was accepted as data, it was predicted that the growth rates would increase in parallel with the increase in labor force. With the growth, the per capita GDP and the capital per capita increase, so technical development was realized. In parallel with the increase in labor force, developing countries had to import capital from developed countries

because of the different growth rates among countries. Thus, developing countries had to achieve rapid growth in order to reach income, capital and interest rates per capita of developed countries. Internal growth theories of growth have emerged against these approaches of neo-classical theories (Acar, 2008: 125-126).

Romer, Lucas Jr. and Rebelo demonstrated significant studies in internal growth theories. Romer accepts information in the long-term growth as an input which increases the marginal productivity in production (Romer, 1986: 1002). In other words, Romer sees information as an input in the production function and the competition balance becomes consistent with the increasing total returns due to externalities. However, the most basic feature of Romer's approach is that the information provides an increase in marginal productivity. In the Romer approach, externalities show that the three main factors in the output are increased returns and new returns in the production of information are consistent with the competition balance (Shaw, 1997: 620).

Lucas Jr. has developed three models the model, which includes physical capital accumulation and technological change, emphasize schooling and human capital accumulation and model and do learning and emphasize private human capital accumulation (Lucas, 1988: 3). Rebelo stated that natural resources such as soil which is the factor which cannot be reproduced with human capital which can be reproducible, are two main production factors. However, he pointed out the importance of human capital which can be reproduced in long-term growth (Rebelo, 1991: 502-520). So Lucas Jr. and Rebelo

incorporated human capital into the field of study of internal growth theories. In this context, human capital is considered to be a production factor like physical capital. Human capital investments include skills acquired through learning as well as training investments. The state has made great contributions to the formation of human capital. Rebelo argues that if human capital increases, growth will accelerate. But Lucas Jr. while it considers human capital as a production factor like physical capital, he does not ignore the importance of physical capital. Therefore, while Rebelo paid attention to the increase in human capital, Lucas Jr. emphasizes the importance of physical capital increase (Acar, 2008: 127-128).

Economic growth theories show that there is a direct and important relationship between education and other social infrastructure expenditures and economic growth. Education investments directly increase the productivity of labor and provide positive externalities for sustainable growth (Voyvoda and Yeldan, 2003: 365).

In order to strengthen their economies of countries and achieve sustainable growth and development, countries need to develop their human capital as well as their physical capital stocks. Education is one of the most important components of human capital. Improvements in the economy strengthen the human capital by increasing the return of education. Therefore, countries that want to increase human capital need to improve their education indicators (Jamison, 2007: 10).

For sustainable economic development, all resources should be used most effectively. Developments in the human factor and the quality of this factor, which is one of the most important of these resources, are at least as effective as physical capital in the development process. The basis for the human factor to be effective in the development process lies in the investment in human education. This investment is the most fundamental source of human capital accumulation. Education investments include all non-formal education as well as formal education, including formal and non-formal education. It is expected that education investments will serve the development process in a rational way in terms of knowledge, skills and capacity, in terms of the quantity and quality of labor required by growth.

In this study, for the 1950-2017 period in Turkey's economy is demonstrated impact of education on economic growth. In this context, it is aimed to explain the concept of education and its economic dimensions, the short-term literature of the relationship between education and economic growth, and the econometric analysis which is primarily involved in the theoretical framework.

2. LITERATURE OVERVİEW

It was emphasized how savings, population growth and technological progress would affect the level of development of a society in living standards in Solow growth model. Although these theories do not produce sharp and rapid results that will ensure the

rapid growth of the economy, they have shown effective results in the implementation of public policies.

Romer included the human in his work while creating the growth model. He added technological developments such as Solow and Diamond to his model as an external factor. Romer's aim is to explain income differences between countries. Therefore he argued that the Solow model would be obtained by expanding it to include human capital. He emphasized in his work that societies have a changing growth rate and that the human capital of societies is effective.

McMahon (1998) argued that the increase of developments in education and the number of participants would not be sufficient for economic development. He emphasized that political stabilityin country should be ensured in order for the development and growth to be fully achieved.Stability predicted that economic growth would increase as physical capital investments would increaseeconomic growth is expected to increase.

Neri (2001) stated that the increase in the quality of education will contribute to the development of economic growth rather than the number of students included in education, Hirsch and Sulis, in their study for Italy in 2009, argued that the richness and accumulation of human capital is an important variable for growth. They argued that human capital has a significant and positive impact on growth, especially in sectors where human capital is heavily used.

Klenow and Bils examined the causality between education and economic growth in their 2000 study. As a result of the causality

analysis, they concluded that there is a causality from growth to education. Singh, Loening and Rao examined the impact of human capital on economic growth in 2010 and concluded that there was a positive interaction between variables.

Despite many studies that reveal the relationship between education and economic growth, there are studies suggesting that there is no significant relationship between these two variables. Griliches (1997) in his study emphasizes that there is no relationship between education and economic growth. Although these contradictory results in the literature claim that the quality of the data set used is low and due to measurement errors, Griliches rejects these claims.In this study, the reason of this contradiction has been shown as the absorption of human capital in the public sector.

The relationship between economic growth and education have been studied by many people in Turkey. Using real GNP variables with the number of students in education in their study 2011, Yaylalı and Leba determined the long term between education and economic growth in Turkey.

Arslan and İzgi (2008) showed that the increase in schooling rate would affect the growth by means of the causality analyzes. Specifically, by increasing the schooling rate in higher education, the qualification and quality of the labor force will increase and thus the employment will be more easily adapted to the technological fields that require high skills. In addition, the Moon and Vice (2008) have reached the conclusion that there is a long-term significant

relationship between economic growth with the number of students enrolled in higher education in the work they do to Turkey.

Berber, Değer and Genç (2010) concluded that the relationship between human capital and per capita GDP varies according to education levels. While two-way causality was observed at primary level, they found that there was a one-way causality from human capital toper capita GDP to secondary income.

Tailor and Telatar (2010) examined the effect of the increase in the number of students according to their education levels on the per capita income. They indicated that there is a one-way positive causality relationship from the per capita GDP to the number of higher education graduates. They concluded that the increase in per capita GDP would increase the number of higher education graduates.

Şimşek and Kadılar (2010) stated in their study that accumulation of human capital supports long-term economic growth and they determined that economic growth increased human capital accumulation by series analysis. In 2005, Çakmak and Gümüş argued that there is a long-term positive relationship between human capital and economic growth in their study. Moreover, they stated that the increase in the number of students included to education in the study would have a decreasing effect on unemployment.

3. METHODOLOGYAND DATA SET

Education growth relationshipwere examined with time series analysisin the study for the years 1950-2017in Turkey. The number of students in the study were included in the analysis of data from Turkey Statistical Institute (TSI), prepared by the " Statistics from the Annual Indicators' were taken. Per capita GDP was used to express economic growth and these data were obtained from the World Bank. The number of students is included in the analysis under four different headings. These; number of students enrolled in primary education (IlkO), number of students enrolled in high school (LSE), number of students enrolled in vocational high schools (MLSE) and number of students enrolled in higher education institutions (UNV). The compulsory eight-year uninterrupted education practice, which came into force in 1997, combined primary and secondary schools. For this reason, the number of students enrolled in primary education was obtained by collecting the number of students enrolled in primary schools between 1950 and 1997 and the number of students enrolled in secondary schools. The number of students enrolled in primary education between 2012 and 2017 due to the implementation of the 4 + 4 + 4 education system enacted in 2012 was obtained by the number of students enrolled in primary schools and the number of students enrolled in the secondary school.

2.1. Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) Unit Root Tests

In the time series, the ADF and the PP test is a test that attempts to analyze and analyze whether the variables have a unit root. Granger and Newbold in their study in 1974, the variables are not stagnant in the series have found to be a problem of fake regression (Sevüktekin and Nargeleçekenler, 2007: 321-323). The Augmented Dickey Fuller test assumes that the error terms contain constant variance. Delayed values have been added to the variables and the ADF unit root test has been cleared of the auto correlation problem. Phillips Perron unit root test does not allow the error term to exhibit a homogeneous structure in the series. Thus, there is no auto-correlation problem in the series (Enders, 2004: 229).

ADF unit root test regression equation;

$$\Delta Yt=(\rho-1)Yt-1+Ut=\delta Yt-1+Ut \quad (1)$$

is shown.

In the equation, Δindicates the primary difference value of the variable. At the end of the analysis, the model is estimated and then δ (Ho) = 0 hypothesis is applied to the series. Because the variables in the series are bound to a random variable, the Ho hypothesis is the unit root, so the variables are interpreted as not stationary. Because residual values are used in the ADF unit root test, instead of the standard t statistic value, the τstatistic with a special table is used (Journal of the American Statistical Association: 427-431).

In the Phillips Perron test, the propositions used for the error terms in the Dickey Fuller unit root test are described with a broader assumption. No limiting assumptions related to Phillips Perron test error terms are used. In addition, the delayed values of the variables required to correct the auto correlation in this test are not included in the model. The Newey-West prediction value is used to determine the delayed value.If the critical value is smaller than the test statistical value, it indicates that the variables are stationary (Altunc, 2008: 113-127).

ADF and PPunit root tests were performed for the variables used in the analysis. The results of the variables are given in Table 1:

Table 1. Unit Root Test Results

(ADF)										
	Variables	Intercept		Intercept+Trend		FIRST DIFFERENCE	Intercept		Intercept+Trend	
		ADF Value	Prob	ADF Value	Prob		ADF Value	Prob	ADF Value	Prob
LEVEL VALUE	lnPRGDP	-1.214	0.188	-2.373	0.384		-5.927	0.000	-5.917	0.000***
	lnILK	0.560	0.986	-2.013	0.571		-4.688	0.000	-4.931	0.002***
	lnLSE	-1.279	0.626	-2.056	0.548		-7.488	0.000	-7.448	0.000***
	lnMLSE	-1.859	0.068*	-2.589	0.551		-6.789	0.001	-7.856	0.000***
	lnUNV	-1.692	0.425	-1.664	0.742		-5.755	0.000	-5.656	0.000***
(PP)										
	Variables	Intercept		Intercept+Trend		FIRST DIFFERENCE	Intercept		Intercept+Trend	
		PP Value	Prob	PP Value	Prob		PP Value	Prob	PP Value	Prob
LEVEL VALUE	lnPRGDP	-1.216	0.198	-2.373	0.384		-5.926	0.000	-5.918	0.000***
	LnILK	0.300	0.974	-2.021	0.567		-4.727	0.000	-4.940	0.002***
	lnLSE	-1.213	0.008***	-2.038	0.558		-7.488	0.000	-7.416	0.000***
	lnMLSE	-2.859	0.058*	-2.478	0.548		-6.001	0.000	-5.485	0.001***
	lnUNV	-1.958	0.302	-1.935	0.612		-5.753	0.000	-5.663	0.000***

NOTE: ***, show significance at 1 percent.

When the results of the series are examined, while lnPRGDP, lnMLSE ve lnLSE variables are stable at the level, ie I(0), while lnILK and lnUNV variables are not static at the level value.For non-stationary variables, Ho hypothesis is considered to be the unit root in the series. The first difference of non-stationary variables was taken to stabilize the series analyzed by ADF and PP tests. Unit root tests were re-applied and the variables were stabilized. The H_1 hypothesis which assumed that not to be the unit root in the series for the variables that became stationary was accepted. It was determined that the lag length of the variables after stability analysis was 2 and there was no auto correlation. ARDL analysis was applied because the variables were stationary at different levels.

2.2. ARDL Model

In order to estimate the cointegration relationship between the series and the Boundary Test approach developed by Pesaran, it does not require that the series be stationary at the same level as other co-integration tests. In addition to reliable results in small samples, ARDL model is one of the important advantages of short and long term balance integration without loss of long term knowledge with error correction model (Saçık and Karaçayır, 2015: 162).

$$\Delta KBMG = \beta_0 + \sum_{i=1}^{p} \beta_{1i} \Delta \dot{I}LK_{t-i} + \sum_{i=1}^{p} \alpha_{1i} \Delta LSE_{t-i} + \sum_{i=1}^{p} \ominus_{1i} \Delta MLSE_{t-i} + \sum_{i=1}^{p} \Delta_{1i} \Delta UNV_{t-i} + \sum_{i=1}^{p} \lambda_{1i} \Delta KBMG_{t-i} + \psi_1 + \mu_{1t} \quad (2)$$

The adapted form of the equation, which shows the long-term relationship between the series, is written in equation (2). In the model “p” represents the appropriate delay length and is determined according to the SBC information criterion with a maximum of two.

2.3. ARDL Bound Test

The ARDL boundary test examines the existence of a long-term relationship between variables. At the end of the analysis, the value of the test statistic indicates whether there is a short or long term relationship between the variables. The F statistical value is compared with the significance level values. If the F statistic value is less than the lower limit, the Hohypothesis which assumed no co-integration will be accepted. If the statistical value is greater than the upper limit of the critical value, the null hypothesis will be rejected.If the statistical value gets a value between the lower and upper critical values as a result of the analysis, no comment can be made about whether there is a co-integration. In such a case, different co-integration tests should be applied (Akel and Gazel, 2014: 30- 31).

Table 2. ARDL Border Test Results

Estimated Equation = InPRGDP = *f* (lnİLK, lnLSE, lnMLSE, lnUNV)		
F- Statistics	6.507	
Significance Level	Critical Value	
	Lower limit (I0)	Top Limit (I1)
% 1	3.65	4.66
% 2,5	3.15	4.08
% 5	2.79	3.67
% 10	2.37	3.20

When the results in Table 2 are examined, all upper limit values are smaller than the F- statistical value. In this case, the Ho hypothesis, which states that there is no co-integration, is rejected. The presence of a long-term relationship between the variables included in the analysis was determined by the ARDL boundary test.

After determining the ARDL boundary test, optimal delay models should be determined. Different delay models are emerging for variables. By selecting any of Akaike, Schwarz and Hannan-Quinnthe information criteria, model which shows the lowest value is chosen as the optimal model.

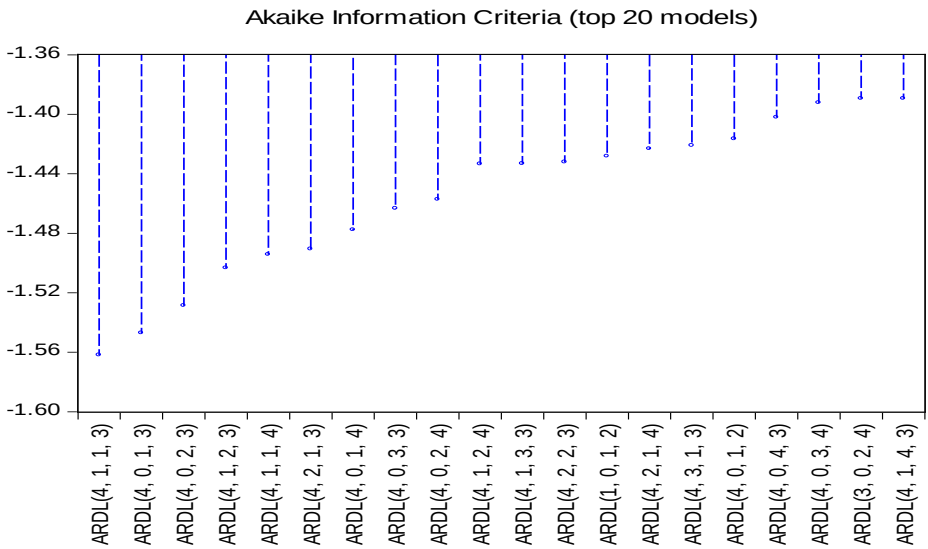

Figure 1. Akaike Information Criteria

According to Akaike Information Criteria, the most suitable ARDL Model is 4, 1, 4, 3. Long-term coefficients can be obtained from the estimated ARDL (4, 1, 4, 3) model. The long-term relationship for the variables used in the model is expressed by looking at the sign and statistical significance of the long-term coefficients calculated.

Table 3. ARDL Long Term Results

Variables	Coefficient	t-statistic (probability value)
D(lnPRGDP(-1))	-0.095	-0.784(0.044)**
D(lnPRGDP(-2))	-0.065	-0.538(0.597)*
D(lnPRGDP(-3))	0.397	3.459(0.003)***
D(lnILK)	0.017	1.630(0.012)**
D(lnLSE)	-0.006	-1.273(0.222)
D(lnMLSE)	0.025	1.859(0.125)
D(lnUNV)	-0.011	-5.208(0.000)***
D(lnUNV(-1))	-0.008	-3.153(0.006)***
D(lnUNV(-2))	-0.006	-2.485(0.025)**
C	-0.143	-6.419(0.000)***

NOTE: ***, **, * 1, 5 and 10 percent respectively show significance.

There are long-term results which states according tothe appropriate delay length inTable3. The results found for the ARDL (4, 1, 4, 3) model reflect that the variables are in a coherent and imprecise relationship.

Table 4. ARDL Long-Term Coefficients

Variables	Coefficient	t-statistic (probability value)
lnILK	0.213	-0.747 (0.046)**
lnLSE	0.138	0.629 (0.538)
lnMLSE	0.012	0.589(0.125)
lnUNV	0.108	0.032 (0.097)*
C	3.967	0.806 (0.043)**

NOTE: **, *, respectively, show significance at 5 and 10 percent.

When the ARDL coefficients are examined, the maximum effect on national income per capita affects the number of students going to primary education (0.213). This variable is followed by the number of students attending high school and university. It is shown that there is a positive relationship between primary school, high school, vocational high school and university variables and national income per capita. The results are similar to the theoretical findings. It is accepted that education is one of the main determinants of economic growth. The positive relationship between the level of education and technological progress creates lasting effects on the increase in outputas well asaffects the level of output per capita through human capital. In addition to the increase in productivity due to the increase in the quality of the workforce, the increase in the capacity of the society to benefit from innovation, also called the spreading effect, is also effective. Therefore, education is macroeconomic; In addition to providing the labor supply that is appropriate to the changing conditions of the economy, it facilitates the transfer of technological innovations to the production process, thus increasing the performance of the economy. Increased labor productivity contributes to the acceleration of growth and development, the increase of competitiveness and the expansion of employment in the long run.

Table 5 shows the short-term relationships of the estimated model within the framework of error correction mechanism. The error correction coefficient (ECM (-1)) was both negative and statistically significant at the error level of 10%. The coefficient of EC (-1) was

found to be -0.123. Accordingly, in the case of any external or intrinsic shock that produces a deviation from the balance, it indicates that about 12% of this period can be corrected after one period (one year in this study). In other words, short-term deviations in a period of about 8 years are again long term equilibrium.

Table 5. Short Term Relationship

Variables	Coefficient	t-statistic (probability value)
D(lnPRGDP)	0.194	-0.584(0.085)*
D(lnİLK)	0.258	-0.538(0.588)*
D(lnLSE)	0.458	3.459(0.098)*
D(lnMLSE)	0.158	-1.895(0.125)
D(lnUNV)	0.012	1.630(0.075)*
C	0.052	-1.273(0.358)
ECM(-1)	-0.123	-5.208(0.0934)*

NOTE: ***, show significance at 1 percent.

2.4. FMOLS- DOLS Test

To test the consistency of estimators according to our expectations in order to estimate the final imprecise coefficients of this relationship after the implementation of the cointegration tests, DOLS (Dynamic Ordinary Least Square) method developed by Pedroni (2000, 2001) and FMOLS (Full Modified Ordinary Least Square) method two methods were used. While the FMOLS method corrects deviations in standard fixed-effect estimators (resulting from problems such as autocorrelation, shifting variance), the DOLS method is a method that can also eliminate the deviations in static

regression (especially due to internality problems) by including dynamic elements in the model (Kök et al., 2010: 8).

Table 6. FMOLS-DOLS Test Results

FMOLS				DOLS		
Variables	Coefficients	t-statistic	Probability	Coefficients	t-statistic	Probability
lnİLK	0.047	9.176	0.000***	0.041	7.462	0.000***
lnLSE	0.018	4.138	0.000***	0.014	3.529	0.000***
lnMLSE	0.022	5.879	0.002***	0.025	4.786	0.000***
lnUNV	0.033	-1.938	0.054*	0.030	-1.236	0.028**

NOTE: ***, **, * 1%, 5% and 10% percent respectively show significance.

According to FMOLS and DOLS test results; There is a positive and long-term relationship between the variables. For FMOLS results; while a 1% increase in the number of students in primary school will cause a 4% increase in per capita GDP, a 1% increase in the number of students in high school will cause a 2% increase in per capita GDP. 1% increase in the number of students in vocational high schools will affect the per capita GDP by 2%. The increase in the number of students going to university will result in a 3% increase in per capita GDP. The results of DOLS are similar to those obtained by FMOLS analysis. The results are consistent with the studies of Lindahl and Krueger (1998) and Berber, Değer and Genç (2010).

2.5. Frequency Distribution Causality Test

Breitung and Candelon established the frequency distribution test based on the VAR model in 2006. While causality analyzes based on a certain time distribution provide a single test value, frequency distribution causality analysis provides three periods (short, medium and long) data for 1% and 5% levels (Adıgüzel et al., 2013: 59).

In Gewek (1982) and Hosoya(1991) have formed the equationz_t= [x_t, y_t] of the series, based on theVAR model for the analysis of the causality (Tasar, 2015: 63);

$\Theta(L)\, z_t=\varepsilon_t$

In the two-dimensional generated equation, the delay length is shown as $L^k z_t= z_{t-1}$. Also $\Theta(L)$ is shown as $\Theta(L)= I- \Theta_1 L-\ldots- \Theta_p L_p$. To express Granger causality;

$$M_{y\to x} = \log\left[\frac{2\pi f_x(\omega)}{\left|\psi_{11}(e^{-i\omega})\right|^2}\right] = \left[1+\frac{\left|\psi_{12}(e^{-i\omega})\right|^2}{\left|\psi_{11}(e^{-i\omega})\right|^2}\right]$$

equation is used.

The hypothesis " $\left|\psi_{11}(e^{-i\omega})\right|^2 = 0$ so it is not granger cause of x' at the frequency of y ω " is accepted. If the values of z_t' are stationary and integrated in the first order in the equation, then the autoregressive becomes the unit root of Θ(L).The remaining roots are left out of the unit disc. If z_{t-1} is subtracted from both sides of the equation;

$$\Delta z_t = (\Theta_1 - I)z_{t-1} + \Theta_p z_{t-p} + \varepsilon_t = \hat{\Theta}(L)z_{t-1} + \varepsilon_t$$

$$\hat{\Theta}(L) = \Theta_1 - I + \Theta_2 L + \ldots + \Theta_p L^p$$

the equation is expressed in this way (Bayat, et al., 2015: 14).

Table 7. Frequency Distribution Causality Analysis Test Results

ω_i	Long Term		Medium Term		Short Term	
	0.01	0.05	1.00	1.50	2.00	2.50
lnPRGDP≠> lnİLK	2.077	2.487*	0.789	0.527	1.279	1.868
lnPRGDP≠>lnLSE	2.054	2.019	1.476	0.488	0.102	2.544*
lnPRGDP≠> lnMLSE	0.131	0.235	1.118	1.025	2.004	1.712
lnPRGDP≠> lnUNV	2.015	1.487	2.023	1.114	0.997	1.087
ω_i	Long Term		Medium Term		Short Term	
	0.01	0.05	1.00	1.50	2.00	2.50
lnİLK ≠>lnPRGDP	3.223**	2.241	1.172	2.404*	0830	1.312
lnLSE≠>lnPRGDP	2.252	1.247	0.739	0.549	2.370	1.894
lnMLSE≠>lnPRGDP	1.720	2.821*	2.004	1.843	2.199	1.777
lnUNV≠>lnPRGDP	2.887*	1.478	2.014	2.178	1.756	1.453

NOTE: F table value with degrees of freedom (2, T-2p) is 4.96 for 1%, 3.14 for 5%, 2.39% for 10%. ***, **, * indicate significance levels of 1%, 5%, 10%, respectively.

As a result of the analysis, the causality between the variables was examined dividing into three periods. In order for causality to be between variables, the F statistic value should be greater than the F table value. When the results in Table 7 are analyzed, while there is a long-term causality from lnPRGDP to lnILK, there is a short-term causality from lnPRGDP to lnLSE. lnILK variable affects lnPRGDP variable in long and medium term. lnUNV and lnLSE affect lnPRGDP only in the long term.

Psacharapoulos-Woodhall who examines the economic effectiveness of educational investments both internally and externally, evaluates the external activity in two points. The first point is that the educational institutions can create the skills and skills that will ensure the smooth course of the economy, have the income expected by those who left or graduated from the school, and they could be employed in the areas where they would use their skills and be melted in the labor market. The other point is the equilibrium between the determined economic benefit and the cost of training investments by measuring the high productivity of the trained workers, which they define as social returns. Psacharapoulos-Woodhall emphasizes that the social returns of educational investments are still very important for human capital stock and developing countries. Psacharapoulos also cites the fact that the private income of primary education in the developing countries is higher than the private income of secondary and tertiary education, which is attributed to the high costs of secondary and higher education. Referring to the fact that the private return on education is higher than the social return, the author emphasizes the question of how to finance the education, which is still highly profitable for families and students (Psacharapoulos, 1992: 89). The results obtained at the end of the analysis support this idea.In particular, the weight given to the service sector in our country and the fact that the majority of the personnel working in this sector are high school and equivalent, and the basic education is sufficient for employment in many sectors is evidence of the results.

3. CONCLUSION

In this study, impact on the economic growth of the number of students enrolled in primary scholl, the number of students enrolledhigh school, the number of students enrolled in vocational schools and higher education institutionswas investigated for 1950-2017 period in Turkey economy. In this context, firstly, stationary stability of the series was analyzed by traditional unit root tests, ADF and PP unit root tests. As a result of the findings obtained, it has been found that the series contains unit roots at the level and it becomes stable as a result of the first differences. When the ARDL coefficients are examined, the maximum effect on national income per capita in the long term affects the number of students attending primary education. This variable is followed by the number of students attending high school and university. There was a positive relationship between primary school, high school, vocational high school and university variables and per capita GDP.

The effects of education indicators on how and to what extent the economic growth is affected are estimated by the long term coefficient estimator FMOLS and DMOLS. According to the results, it is predicted that the %1 increase in the number of students attending primary education increases the economic growth by %0.047. The increase in the number of students in high school affects economic growth positively and it is concluded that %1 increase economic growth by %0.018. The number of students attending vocational high schools affects economic growth by %0.022. The increase in the number of students studying at university has a positive impact on

economic growth. A %1 increase in the number of students studying at the university increases the economic growth by %0.033.

From the number of students in primary education to economic growth causality relation and from economic growth to number of students in high schoolcausality relation has been determined. The results are overlapping with other studies in the literature. When education is the most important factors to ensure the development of Turkey which is given sufficient resources and significance, it can increase economic growth significantly. Education is very important in the short and long term training plan of Turkey. Of the economic policies being compatible with educational policies to be applied to Turkey's development level will provide great contribution is an undeniable fact.

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