T. R.
VAN YUZUNCU YIL UNIVERSITY
INSTITUTE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF STATISTICS

THE INFLUENCE OF BOLOGNA PROCESS ON PROMOTING LEARNERS' SCIENTIFIC LEVEL: A SAMPLE OF SORAN UNIVERSITY

MSc. THESIS

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VAN-2021

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ACCEPTANCE AND APPROVAL PAGE

This thesis entitled **"**The Influence of Bologna Process on Promoting Learners' Scientific Level.: A Sample of Soran University" presented by Hazhar Kareem MAHMOOD under supervision of Asst. Prof. Dr. Şakir İŞLEYEN in the department of Statistics has been accepted as a M.Sc thesis according to Legislations of Graduate Higher Education on 18/06/2021 with unanimity of votes members of jury.

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Director of the Institute

THESIS STATEMENT

All information presented in the thesis obtained in the frame of ethical behavior and academic rules. In addition, all kinds of information that does not belong to me have been cited appropriately in the thesis prepared by the thesis writing rules.

Signature

Hazhar Kareem MAHMOOD

ABSTRACT

THE INFLUENCE OF BOLOGNA PROCESS ON PROMOTING LEARNERS' SCIENTIFIC LEVEL.: A SAMPLE OF SORAN UNIVERSITY

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Northern Iraq has begun to develop with a new type of education system, the northern Iraq government has chosen the European higher education system and its main goal is to be part of the Bologna process. Reforms in the northern Iraq higher education system were necessary for the country, and indeed much has changed since the beginning of the stage. The aim of this research is to investigate the Effect of Bologna Process on Raising Student Knowledge in the Northern Iraq. A series of questions have been prepared in the form of a questionnaire. These questions have been prepared according to the students' admission strategy, which focuses on faculty, age, gender, status, and other related variables after the student is admitted in this new system. The researcher analyzed the questionnaire forms by using the SPSS program. We can obtain the most crucial factors that affect the impact of the Bologna process on improving the scientific level of students.

Chi-Square and Logistic Regression methods were used to analyze the effect of the new education system implemented in Northern Iraq on student education level. The application was conducted in 4 faculties of Soran University with a survey method and a total of 204 students participated. As a result of the analysis, it was observed that the new education system gave significant results on student education levels.

Keywords: Bologna Process, Chi-Square, Logistic Regression.

ÖZET

ÖĞRENCİLERİN BİLİMSEL DÜZEYİNİ GELİŞTİRME KONUSUNDA BOLOGNA SÜRECININ ETKİSİ: SORAN ÜNİVERSİTESİ'NİN BİR ÖRNEĞİ

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Kuzey Irak yeni bir eğitim sistemi ile gelişim göstermektedir, Kuzey Irak hükümeti Avrupa Yüksek Öğretim sistemi ile ana hedefi Bologna sürecinin bir parçası olmak için bu sistemi uygulamaktadır. Kuzey Irak Yüksek Öğretim sistemindeki reformlar ülke için gerekli olmasının yanı sıra değişimin olumlu sonuçları görülmektedir. Bu araştırmanın amacı, Bologna Sürecinin Kuzey Irak'ta öğrenci bilgisini üzerindeki etkisini anlamaktır. Anket sistemi ile yapılan çalışmada öğrenci kabul edildikten sonra fakülte, yaş, cinsiyet, durum ve diğer ilgili değişkenlere odaklanan öğrencinin kabul stratejisine göre hazırlanmış anket soruları sonuçları SPSS programı kullanarak analizler yapılmıştır.

Kuzey Irak'ta uygulanan yeni eğitim sisteminin öğrenci eğitim seviyesi üzerindeki etkisini analiz etmek için Ki-Kare ve Lojistik Regresyon yöntemleri kullanılmıştır. Uygulama anket yöntemi ile Soran Üniversitesinde 4 fakültede yapılmış ve toplamda 204 öğrenci katılım göstermiştir. Yapılan analizler sonucunda yeni eğitim sisteminin öğrenci eğitim düzeyleri üzerinde anlamlı sonuçlar verdiği gözlemlenmiştir.

Anahtar kelimeler: Bologna Süreci, Ki-Kare, Lojistik Regresyon.

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June 2021

Hazhar Kareem MAHMOOD

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1. INTRODUCTION

The Bologna Process is many ministerial meetings and agreements between European countries to guarantee comparability within the criteria and quality of higher education qualifications. The procedure has produced the European Schooling Area under the Lisbon Recognition Convention. It is named after the University of Bologna, the place that the Bologna declaration was signed by training ministers from twenty-nine European countries in 1999. The task was opened to various other places within the European Cultural Convention of the Council of Europe, and governmental conferences are kept in Prague (2001), Berlin (2003), Bergen (2005), London (2007), Leuven (2009), Budapest Vienna (2010), Bucharest (2012), Yerevan (2015 Paris and) (2018), (Wikipedia, 2021).

Prior to the signing on the Bologna declaration, the Magna Charta Universitatum was given at a meeting of university rectors celebrating the 900th anniversary of the University of Bologna (and European universities) in 1988. One season prior to the declaration, training ministers Claude Allegre (France), Jürgen Rüttgers (Germany), Luigi Berlinguer (Italy) and Baroness Blackstone (UK) signed the Sorbonne declaration in Paris in 1998, committing themselves to "harmonizing the structure of the European Schooling system". The Bologna Process has forty-eight participating countries (Wikipedia, 2021).

The thesis is focused on the cause as well as significance of the Bologna Process along with the impact of it on schooling advancement in northern Iraq. The evaluation of Bologna Process growth and the method of higher education in Northern Iraq are carried through the diachronic perspective. The current state of schooling in northern Iraq is reviewed on account of the Bologna Process whose initial goal was creating a European Schooling Area. The present system of northern Iraq schooling is targeted at fulfilling the educational needs of people, entry of national science on the overseas level, renovation of spiritual and intellectual potential of the region and at development and formation associated with a skilled professional whose professional instruction corresponds to the international requirements. Northern Iraq is among the regions taking

part in Bologna process after 2019. At this moment, changes that are many were made on the present schooling program and a lot more are expected. The Bologna Process is a procedure aimed at making sure comparability within the criteria and quality of higher education qualifications are met. It started on the nineteen of June 1999, once the ministers from twenty-nine European nations met in Bologna to sign an important agreement, the Declaration of Bologna, which formally marked the beginning of the procedure. The primary goal of the Bologna Process is creating a European Schooling Area and increase the European higher education process around the globe to boost global competitiveness. To guarantee the comparability of European faculty systems, the Bologna Declaration determined a selection of primary goals, whose progress has been administered and handled by way of a series of Ministerial Conferences held between 1999 and 2018.

The Bologna and Lisbon Processes wish to set most effective info culture possible, in addition to a lifelong learning process for the pleasure of the necessary human resources likely (Kahraman et al., 2014). Since 1999, European training ministers have reviewed and further applied the Bologna procedures, a wide-ranging framework of the change of advanced schooling. Lifelong learning was inserted as an objective of the system in 2001. The analysis of legislative policy and instruments positions of various stakeholders in Germany, France, Italy, and the UK suggests that areas link quite diverse ways to lifelong learning in advanced schooling (Jakobi et al., 2009).

In the era of globalization, it is needed for advanced schooling being modified to labor market demands as well as requirements associated with a contemporary society. The past decade offered a powerful time of reorganization and transformation of the academic policy of the European countries with the objective of producing one European Schooling Area (Anđelković et al., 2018).

The Bologna Process as well as its ramifications heralds the most far-reaching reforms in European advanced schooling in this century. It is not with no reason that a lot of us are split regarding whether the Bologna Process is going to enhance or even wreck our method of language training. Yet this division of minds need not become an educational' civil war'; despite its natural pluses and drawbacks, the Bologna Process

invites us to reinvent as well as reinvigorate language training with a focus on inclusivity, internationally exacting standards and inter university effort (Mitchell et al., 2014).

The Bologna Process continues to be a big challenge of the change of the European advanced schooling system and its goal being raising Europe's advanced schooling to a higher level of quality, equality, compatibility and comparability of degrees and studies across (Govekar-Okoliš, 2018).

2. LITERATURE REVIEW

Kahraman et al. (2014), Student Participation in Bologna Process: A Case Study from Turkey. The objective of this analysis is exploring students' perceptions about the brand-new system outcomes framed together with the Turkish Advanced Schooling Qualifications Framework to make a pair of standards for any Bologna Process being applied. The content analysis method is used to determine students' visual outcomes. Research strategy is utilized to look at students' perceptual results. The researchers made use of a semi structured questionnaire together with the (INAR: is a component of the Faculty of Architecture and Engineering), pupils including open ended questions. The outcomes also exposed the demand of pupils for the acquisition and utilization of communicative, interdisciplinary, and collaborative facets of the career and the expectations of theirs on equally practical and theoretical contents of INAR courses.

Öhlén et al. (2011), Impact of the Bologna procedure in Bachelor nursing programs: The Swedish case. The target of the research was analyzing attributes of the main topic along with the relationship of it to many other subject areas like social sciences and medical sciences, in Bachelor nursing programs in Sweden following first implementation of the Bologna procedure. Specific research questions have been raised and operationalized as indicators that are specific. The material was analyzed by text analysis to examine the various sections, contents, and interpretations of the text. A constructivist strategy as well as descriptive content analysis had been used to evaluate the 2008 nursing curricula as well as syllabi of twenty-seven undergraduate programs at twenty-six Swedish universities and colleges. The results disclosed perturbation in terminology and ideas for the main topic in addition to the scientific foundation of demarcation between the main subjects along with other topics bundled in the research plans and its connection with the career.

Leoni (2014), Graduate employability and the development of competencies: The incomplete reform of the "Bologna Process". The goal of this paper is analyzing the coherence between the objective and competency mismatches of European policymakers to change the schooling process through the Bologna Process and the

Dublin Descriptors, going from the transfer of expertise from the professor to learning by the pupil and from disciplinary expertise to competencies. The survey required hundred one European colleges, with 5,183 questionnaires from students, 944 from companies/employers plus 998 from academics. The paper is based first on the theoretical arguments that confront the European reform of the tertiary education system and the nature of competency mismatches, and second on graduate earnings function estimates using two Italian databases. In the analysis, regression analysis was performed using the Least Squares and 2-Stage Least Squares methods and the results of this method were compared. The result does not transform if rather than the 2SLS estimator the GMM is applied (with the w matrix strong option).

Jakobi et al. (2009), Lifelong learning in the Bologna process: European developments in higher education. The objective of the research was to assess the extent to that the improvement of lifelong learning has progressed and examines whether the Bologna procedure has facilitated lifelong learning possibilities in a sample of nations. The information source is the Organization for Economic Cooperation as well as Development's online' (OECD) training databases that is dependent on the UOE (UNESCO Institute for Statistics, OECD plus Eurostat) questionnaires on training statistics. The study suggests that countries know lifelong learning in advanced schooling differently with this situation partially reflects earlier -' ante-Bologna'-national premises. The effect is a blend between international convergence - of the target to allow lifelong learning - and national premises. They first describe the European level of education policy-making. By means of central documents in the Bologna process, they then isolate two dimensions of lifelong learning – access and recognition – that they afterwards analyse in Germany, France, Italy and the UK. These country studies encompass the analysis of legal frameworks linked to lifelong learning, the position of rectors' associations as major players, and education statistics. Such documents are, for example, background texts representing the result of specific discussions in the Bologna process or conference programmes.

Anđelković et al. (2018), Pedagogical benefits of fieldwork of the students at the Faculty of Geography in the light of the Bologna Process. The target of the analysis was examining the viewpoint of learners at the Faculty of Geography, University of

Belgrade on the pedagogical advantages of fieldwork. The objective ended up being to figure out exactly how the students estimate didactic methodical elements of fieldwork. A total of 215 learners evaluated pedagogical advantages of fieldwork in relation to didactic methodical aspects. The statistical research involved descriptive statistics (frequency calculations and percentages for each response), average value calculations for each argument independently, and discrepancy checking. The t-test was used to test differences between individual claim scores, while the F-test was used to test differences between classes. Research results suggest the desire to enhance the quality of fieldwork and boost the share of it in the curriculum on the Faculty of Geography in accordance with the constructivist paradigm in training, and that puts a student at the Centre of academic process, and basic concepts of the Bologna Process.

Voegtle et al. (2011), to what extent does transnational communication drive cross national policy convergence? The impact of the Bologna process on domestic higher education policies. This study explored whether transnational communication within the context of the Bologna Process has resulted in the convergence of advanced schooling (HE: hiegher education) policies. Data of this paper was taken from a sample of twenty-one OECD countries. These twenty-one countries could be split into 2 subgroups, as well as the results indicate that convergent consequences differ across policy sizes and according to the subsamples. The degree of policy similarity was measured in a dyadic approach resting on the comparison of country pairs.

Govekar-Okoliš (2018), Mentors' perceptions on effects of their mentoring with higher education students in companies after the adoption of the Bologna process. The goal of the analysis is determining what teachers working with students in businesses in a few European nations consider mentoring after adoption of the Bologna Process., A test was comprised of fifty-seven participating mentors from different businesses from Slovenia (fifty-two), Croatia (three), Italy (one) and the Slovak Republic (one). There have been thirty-six female teachers along with twenty-one male; the typical age was forty-two; the typical seniority 17.2 years. This particular study 's findings bring brand new insights into the way the Bologna Process has modified mentoring and its formal organization. The consequences of mentoring are both negative and positive. The analytical analysis approach was used to interpret mentors' insights and interactions

when mentoring higher education students adopting the Bologna Process implementation. The results are essential for enhancing the quality of mentoring in businesses and developing an EU system of mentoring businesses in the long term.

Furuzan (2012), Adaptation to the Bologna Process: The case of Turkey. This study was conceptualized making use of a non-experimental, descriptive research technique, namely archival/document analysis. This research technique is accustomed to evaluate trends across time, and usually, to explain what is available, in what quantity and in what context. The data had been collected from the Student Selection as well as Placement Center (ÖSYM: Turkish: Ölçme, Seçme ve Yerleştirme Merkezi) data of Turkey, Turkish Council of Higher education (YÖK: Council of Higher Education) accounts, and the Bologna Declaration accounts. The results suggest the convergence process of advanced schooling in Turkey will continue to create progress. This study was conceptualized using a non-experimental, descriptive research method, namely archival/document analysis.

Bosio and Leonardi (2010), The Impact of Bologna Process on the Graduate Labor Market: Supply and Demand. This paper is a preliminary effort to determine the consequences on the change on (i) the distant relative probability (relative to non-graduates) of work of college graduates in the age range 25-34; (ii) the quality of their work assessed with the relative likelihood to be used with a short-term contract; (iii) the university wage premium. Using administrative data to determine the gradual launch of the reform in various universities. Finally, the researchers discovered that post Reform University students have a drastically reduced college premium regarding high school students than pre reform graduates. These outcomes are gotten managing for contemporaneous launch of labor market reform consequently the deference is not likely to be true because of omitted labor need variables. In the study, regression analysis with the least squares method was used.

Lerche (2016), The effect of the Bologna Process on the Duration of Studies. The reason behind this treatment is the fact that for these students all pertinent information from when they start to go into the faculty system until they exit Göttingen Faculty could be noticed. For the evaluation, administrative student data were collected at Göttingen Faculty, Germany is used. Using a considerable dataset that contains

detailed administrative details on over 9000 learners. The results show the Bologna procedure reduced the length until graduation in relative and absolute terms, indicating that among the re-forms primary goals was achieved. Furthermore, there is a positive effect to be enrolled in a bachelor plan on the likelihood of dropping from faculty for students enrolled at the school of humanities. Nevertheless, the results regarding faculty drop out are much less conclusive for another faculties. In the study, competing risks models are estimated and survival analysis was used.

Zahavi et al. (2019), The Bologna Process: an international higher education regime. The goal of this study was to go over the Bologna Process being a method of global coordination; or in the jargon of overseas associations, as a' regime'. The effect had been the Bologna Process is a good regime; not merely has it been successful in setting up the Schooling Area that it was developed, it likewise induces the members of its, and nonmember players, to learn its guidelines and comply with them whenever they are available in contact with it. The article traces the features and methods enabling the Bologna model and their diffusion outside Europe. At the same time, the article evaluated the Bologna process and the diffusion process in Europe.

3. METHODOLOGY

3.1. Bologna Process and Northern Iraq

Bologna Process takes its title from the Bologna Declaration that had been signed on June nineteen, 1999 in the Italian town of Bologna from the 4 founding member states France, Italy, UK, and Germany. Combined with the Council of Unesco and Europe, many international bodies have provided the support of theirs to produce the technical and institutional framework for the beginning of the meditation process. To start with it looked to cope with the inner issues of Europe regarding the extremely poor compatibility of national higher education (Reinalda and Kulesza, 2005)

Nevertheless, 6 years after the official start of it in 2005, conversation of Bologna Process in a global atmosphere started in planning for the Bergen ministerial summit. No matter, the demand for an international reach of BP was clear right from the start once the Bologna Declaration set its activities like strengthening global recognition, increasing overseas competitiveness, and finding a quality of worldwide attraction. Of the cultural, political, and financial obstacles dealing with the Northern Iraq, the most difficult is the quality of training. The Ministry of Higher Education and Scientific Research (MHESR) of the Kurdistan Regional Government (KRG) has created an effort to solve this problem by applying the "Bologna Process" in its post-secondary Education. On a good note, concern started around 2015 on the setup of the Bologna Process in the area with the main objective of internationalizing colleges in the Kurdistan region. In 2017, in cooperation with 4 European partners, 10 Northern Iraq Universities and the MHESR, an EU funded project entitled "TIGRIS (Transfer of Good Practices & Reinforcement of Internationalization Strategies)" started to create capabilities in the better education sector. The TIGRIS task aimed to help support the modernization, internationalization, and accessibility of schooling in Northern Iraq on 3 levels that are different - institutional, international, and national. To improve capacity building, MHESR sent its thirty-three-faculty member, selected from seventeen public and private colleges, to a pedagogical education course at the HAMK Faculty of

Applied Sciences in Hemeenlinna, Finland. The Ministry of Education of the KRG thus unveiled a brand-new academic training plan, which started on April sixteen, 2019 in 4 education facilities in Erbil, Duhok, Sulaimani and Garmian.

To know why Northern Iraq, select the Bologna Process, it is essential to analyze the context of schooling in Northern Iraq. The higher education process in Northern Iraq needs reform and the method has proven to be a crucial device to facilitate the setup of the required changes. For instance, the quantity of colleges in Northern Iraq continues to grow quickly in an extremely brief period. The Bologna Process offers a roadmap for many new as well as older colleges to adjust to changes in advanced schooling around the planet. Club membership in the European Education Area is viewed as a chance to take on global challenges that will not be tackled at national level. In this regard, by offering things, the Bologna Process can reinforce the job of colleges in global and national politics eventually.

3.2. Aim

The target of the study would be to understand the consequences on the Bologna process on enhancing the knowledge level of Soran University students. The objective would be to how the students realized the Bologna process and even that which was the level of theirs of expertise after the Bologna procedure. Furthermore, the objective was clarifying whether Bologna process had an influence on rising students' levels.

3.3. Learn Area

Research area is the Soran town which is a town in the province Erbil that is located in the north of Iraq. The area of study can be found between latitudes (36° 24", 37° 11") in the north and longitudes (44° 15", 44° 54"). Iran is located at the east aspect of Soran community, at the north you can see Turkey and at the south as well as west you will find some other urban areas of Erbil (Mustafa, 2004).

Northern Iraq consists of three governorates of Erbil, Sulaymaniyah, and Duhok. The town of Erbil is located in the northern part of Iraq and it is the second capital city of Federal Iraq after Bagdad. Erbil fringes Turkey toward the north as well as Iran

toward the east. Erbil consolidates with Sulaymaniyah and Duhok to condition the territory. The security circumstance stays by and big quiet. UNESCO has funded a project to renovate and revitalize the Citadel in Erbil community, among the world's many started busy settlements, matured somewhere within the assortment of 3,000 and 6,000 years of age. Beginning in 2013, it is a fixed public of around 1.5 million. In Erbil may be gone back again to 5000 BC and it is among the most recognized constantly occupied zones on the earth (Aziz, 2011).

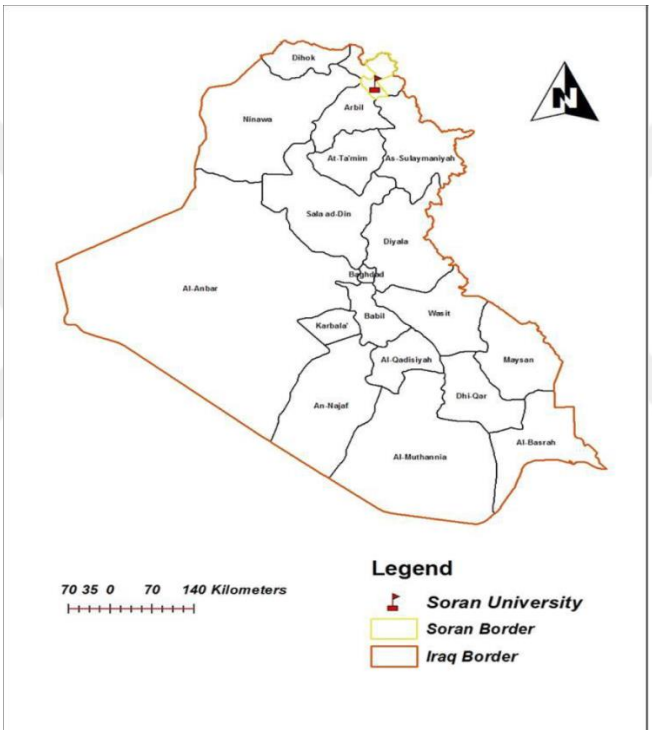

Figure 3 1 Map of Soran University and Iraq Government (Mustafa, 2004).

3.4. Survey Sampling

This analysis used straightforward arbitrary sampling that is a section from probability sampling methods. The provenance of details for the analysis was the main data collected by use of questionnaire Google form from first year students from Soran University. Background information is composed of thirty-two questions depending on the common info, Support and Environment and Academic concepts, student services. The information was gathered up by Google form. Most individuals granted the

satisfaction of theirs for conducting this research study. The academic year of 2019/2020 was picked because of the research. Based on the technique used, the sample size was 204 students and the surveys have been sent out randomly. Questionnaire applied to this analysis is show in Appendix one.

The sample size was controlled by utilizing the ungrouped one phase random likelihood sampling strategy based on household (Aydin and Kilic, 2013):

$$n=((Z_{\alpha/2})/d)^2 * p*q$$

Were:

n= the sample size

Z /2 = the significant level (assumed to be 95%)

p = the probability of examining situations occurring (the absence of preliminary information concerning small business and sustainable market influence factors)

q= Probability of the situation not occurring (q=1- p)

d= the margin of error (assumed to be 95%)

Also, for survey the reliability is one of the most important and fundamental countenance in the evaluation of any measurement instrument or tool for a good research for an exploratory or pilot study (Namdeo and Rout, 2016). It is suggested that $\alpha \geq 0.90$ = excellent, $0.90 > \alpha \geq 0.80$ = good, $0.8 > \alpha \geq 0.7$ = acceptable, $0.7 > \alpha \geq 0.6$ = questionable, $0.6 > \alpha \geq 0.5$ = poor, and $\alpha < 0.5$ = unacceptable (Hansen and Kjaersgaard, 2020).

3.5. Data Collection Process

Data collection process aimed to identify the effect of the Bologna procedure on the students' amount of expertise in Soran University. To get this done, we made use of a semi structured questionnaire together with the Soran University students including open ended questions.

The survey is based on the information obtained by distributing the online survey form to 204 students in the first phase from four different faculties (Faculty of Art, Faculty of Science, Faculty of Engineering, and Faculty of Law) at Soran

University from 2019 to 2020. A stratified random sample was chosen and analyzed by using IBM SPSS Statistics V:24 to identify the most crucial factors, as well as numerous graphs and statistical tables. This study consists of five chapters, the first chapter provides an overview and general information about the new process in northern Iraq (Bologna process), the second chapter is a review of the literature, the third chapter the theoretical part (research aim and methodology), the fourth chapter contains some work, data analysis and results, and the last chapter contains the study's conclusions.

The sample was comprised of n=204 students from Soran University who participated in the fieldwork. The sample provided respondents of both sexes (54.9 % men as well as 45.1 % females), who went to the next analysis shows (51.0 % from the faculty of art, 4.9 % from the Faculty of science, 5.9 % from the Faculty of engineering, along with 38.2 % from the Faculty of law. A questionnaire especially created for this analysis. Along with general style questions that were linked to overall attributes of the respondents (Faculty, Marital Status, Sex, as well Age). Participants have been required to select an alternative on the category by choosing among the values on the machine, and the respondents filled out a questionnaire promptly.

3.6. Data Analysis

3.6.1. Chi square test:

When the dependent variable is evaluated at a nominal amount, the Chi-square statistic is a non-parametric (distribution free) method for analyzing group discrepancies. The Chi-square statistic, like all non-parametric statistics, is resilient to data propagation. It does not, for example, demand that the sample groups' variances be equal or that the data be homoscedastic. It can be used to evaluate all dichotomous independent variables and studies of different groups. When the factors are nominal, the Chi-square measure of freedom (also known as the Pearson Chi-square test or simply the Chi square) is one of the most important figures for evaluating theories. The Chi-square test is an important data processing method that shows a lot about the essence of study data. When the expectations of equal variances and homoscedascity are broken, parametric statistics such as the t-test and ANOVA cannot produce accurate data, the

Chi-square test is an ideal instrument to use. Unlike other statistics, the Chi-square (χ^2) may provide comprehensive information on not only the importance of any observable variations, but also the groups account for any differences detected. As a result, the quantity and quality of knowledge that this statistic can generate makes it one of the most valuable resources in a researcher's arsenal of analytical tools. The Chi-square test has many benefits, including its robustness in terms of data distribution, ease of calculation, extensive knowledge that can be obtained from the test, use in studies where parametric assumptions cannot be fulfilled, and consistency in processing data from both two party and multigroup studies. (Mary L. McHugh, 2013).

An (m × n) possibility Table with Pearson Chi Square was used to measure whether there is a positive significant relationship between all these categorical variables. The test is linked when you've 2 downright variables from a single public. It is used to find out whether there is a substantial association between the 2 variables. The formulation for the chi square statistic utilized in the chi square examine is: The chi square formula. The "c" subscription will be the amount of freedom. Your observed worth is "O" and E is usual esteem (expected value). Chi squared test, also composed as χ2 check is any statistical hypothesis test where the examining conveyance of the test statistic is a chi squared division if the invalid speculation (null hypothesis) is real. A chi squared test could be used to try rejection of the invalid speculation (null hypothesis) which the information is independent (Bryant et al., 2012),

$$\chi^2 = \sum \left[\frac{(O - E)^2}{E} \right]$$

Where;

O: observation

E: expected $$\mathrm{E} = \frac{C * r}{T}$$

T: Total

r: number of Row

C: number of Column

3.6.2. Logistic regression analysis

Before starting research of logistic regression, it is vital to learn that the aim of an evaluation utilizing this strategy is equivalent to that of any model building method utilized in statistics: to discover the ideal fitting plus should parsimonious, but biologically sensible model for describing the partnership between an event (dependent or response) variable and a pair of independent (explanatory) variables or predictor (Hosmer et al., 2000).

Logistic regression is a powerful tool, allowing multiple explanatory variables being analyzed simultaneously, meanwhile reducing the effect of confounding factors. However, researchers must pay attention to model building, avoiding just feeding software with raw data and going forward to results. Some difficult decisions on model building will depend entirely on the expertise of researcher on the field. The main advantage is to avoid confounding effects by analyzing the association of all variables together. Logistic regression works very similar to linear regression, but with a binomial response variable. The greatest advantage when compared to Mantel-Haenszel (the Cochran–Mantel–Haenszel test (CMH) is a test used in the analysis of stratified or matched categorical data) is the fact that you can use continuous explanatory variables and it is easier to handle more than two explanatory variables simultaneously (Sperandei, 2014).

The two popular machine learning algorithms that are supervised by the supervised learning technology are linear regression and logistic regression. Since both algorithms are tracked by default, the labeled data collection is used to make the predictions. But how they are used is the biggest distinction. Linear regression is used to address problems with regression, while Logistic regression is used to solve problems with classification. Regression logistics is much easier to introduce, interpret and prepare. If there are features smaller than the number of observations, the logistic recovery cannot be used, as this can otherwise lead to over fitting. No assumptions are made about class distributions in the functional space.

All the strategy models of stats have similar target in examining the data; logistic regression is among them. The sole difference between logistic regression and a linear regression design is in outcomes of variables. In the former the outcome is dichotomous

or binary. The variance between linear and logistic regression is mirrored both in the choose associated with a parametric style and in the expectations. This variance utilized to say in evaluation of logistic regression stick to the exact same regulations of linear regression analysis. For any kinds of regression analysis, the substantial measure will be the hostile values of the outcome variable, considering the values of the independent adjustable as:

$$E(Y/X) = \beta_0 + \beta_1 x$$

Where Y signifies the result variable, X represents a value of the independent variable, and the βi's symbolize the model parameters. Many distribution functions have been proposed for use in the analysis of a dichotomous outcome variable. The specific form of the logistic regression model is (Hosmer et al., 2000).

$$\pi(X) = \frac{e^{X}/1 + e^{\beta x}}{\frac{1}{1 + e^{\beta x}}} = e^{\beta x}$$

For simplifying notes, we let π (X) =E (Y/ X). The transformation of π (X) logistic function is identified as the logistic transformation:

$$g(x) = \beta_0 + \beta_1 x$$

The key of this transformation is the fact that g(X) has a lot of the show attributes associated with a linear regression version. The logit, g(X) is linear in the parameters of it's, might be constant, and could vary from minus infinity to great infinity, influenced by the number of X. In brief, the crucial features in a regression analysis whenever the outcome varied are dichotomous as follows:

1. The conditional hostile of the regression situation should be developed to be bounded between zero and one (equation satisfies this constraint).
2. The binomial distribution talks about the distribution of the mistakes and is the statistical distribution upon that the evaluation relies.
3. The concepts which guide an evaluation utilizing linear regression will acquire for logistic regression.

Method of linear regression is used to estimate unknown variables which called least squares. The values of details in this strategy select to diminish the number of squared deviations of the experimental values of Y from the modeled values. In linear regression the technique of least squares captures evaluators with a selection of attractive statistical properties. When the technique of least squares is implemented to a unit with a dichotomous consequence the estimators do not have these exact same qualities. The public method that results to the squares feature underneath the linear regression version (when the mistake is distributed) is called the optimum likelihood. This technique provides the foundation for assessing the parameters of a logistic regression version. A brief overview of suiting the logistic regression design is provided below (Hosmer et al., 2000).

It is invalid to originate the mathematical look on the statistic G. Rather; it must be claimed which below the null hypothesis that's β1 equal to 0, G is going to follow a chi square distribution with one d.f. Another test statistic, much like G for the objective, applied to this study is recognized as Wald Statistic (W) that uses a regular distribution underneath the null hypothesis which β1 = zero. This statistic is computed by distributing the assessed valuation of the parameter by its regular error as:

$$W = \frac{\hat{p}_1}{Se_{(\hat{p}_1)}}$$

The likelihood ratio test must be worn in doubtful instances, particularly when Wald test do not refuse at time when coefficient was considerable. A ratio to be useful for 2 chances is known as the odds ratio (OR). The odds ratio is used-to provide us with a concept of in what manner powerfully a certain variable could relate to the outcome of interest when compared with various other variables. For a chance of financial success p, the chances (likelihood) of financial success (in the case of ours with because of inspiration, i.e., involved) are defined.

$$odds = \frac{\pi}{1 - \pi}$$

Chances are nonnegative values. While the chances are a bit less than 1, the potential for accomplishment is much less than that of disappointment; once the chances equivalent one, the probabilities of achieving success and failure are just as likely; when

the odds are more than one, the likelihood of success is more than that of failure (Hosmer et al., 2000).

4. RESULT AND DISCUSSION

The goal of this chapter is to analyze the data that was collected through the questionnaire by Google forms to explore the influence of Bologna Process on promoting learners' scientific level of students of the University of Soran. This part includes an applied study based on information obtained by distributing questionnaires form among students in the first stage in five different faculties in Soran University for the 2019/2020 academic year.

4.1. Socio Demographic Characteristics of Respondents

Descriptive statistics discussed in this work is the bar chart for four variables. Thus, the height or length of the bar indicates the measured value or frequency, chart 4.1. to 4.4. Respondents' demographic profiles based on variables, such as Faculty, Gender, Age, and Marital status.

Figure 4.1. Shows the student faculties, which is divided into five different faculties, (22.10%)45 students at the Faculty of Art, (19.10%)39 students at the Faculty of Education, (20.58%)42 students in engineering, (18.62%)38 students in Faculty of Law, International and Management and (19.60%)40 students at the Faculty of Sciences.

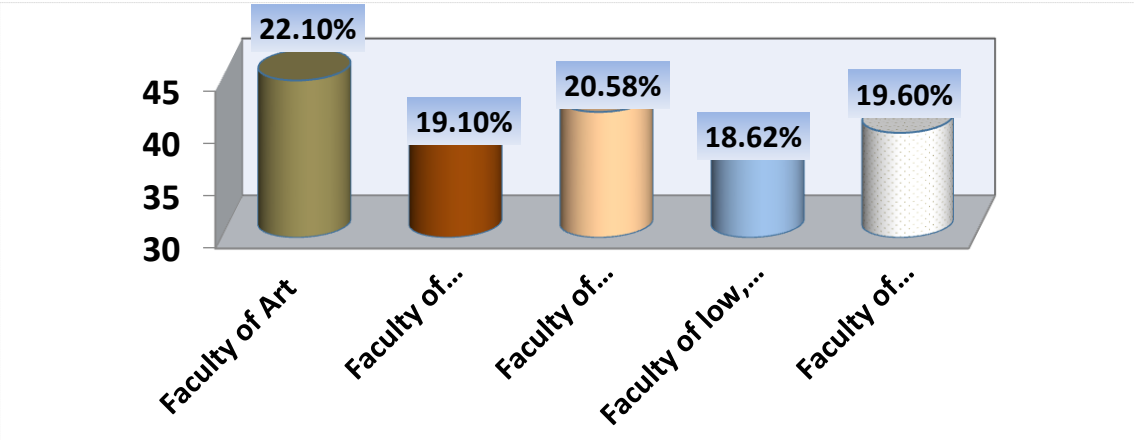

Figure 4.1. Number of students by Faculty.

Figure 4.2. Shows the gender of respondents, according to the results, about 45.1% of the respondents were male, in addition to 54.9% of female students, which showed that the number of female students was higher than that of male students.

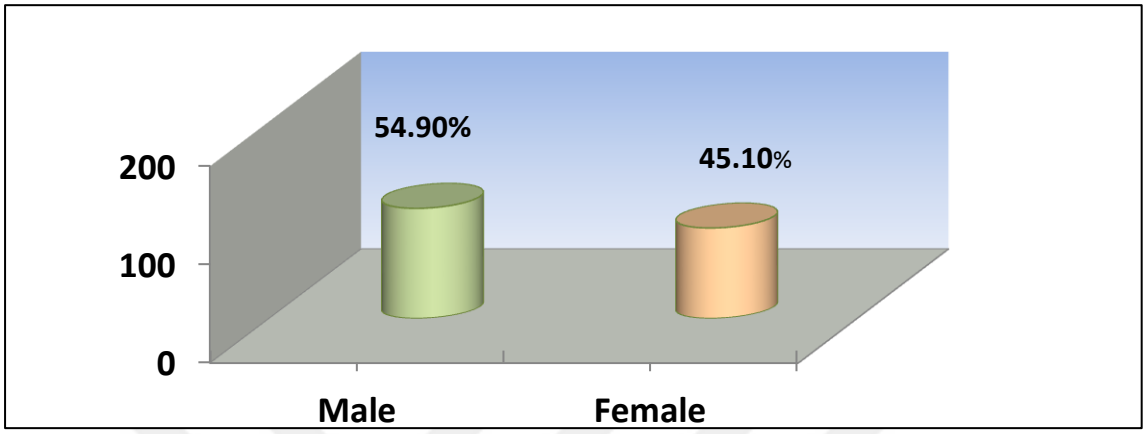

Figure 4.2. Gender of respondents.

Figure 4.3. Shows the students' age, the result of respondents portrayed that (22.10%) 45 of the respondents were 18 years old, (33.30%) 68 of respondents were 19 years old, (21.60%) 44 of respondents were 20 years old, and just (23.00%) 47 of respondents greater and equal to 21 years old.

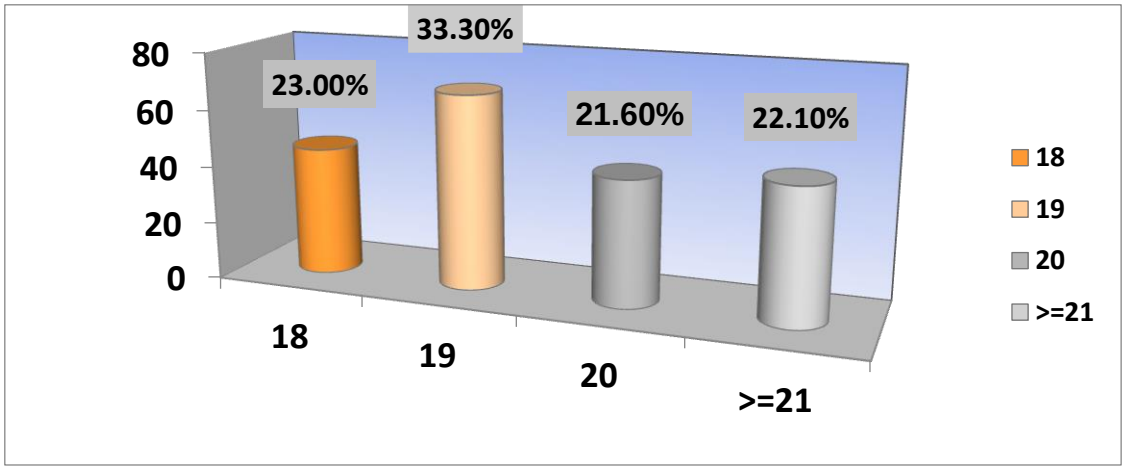

Figure 4.3. Students' age.

Figure 4.4. Shows the Marital Status of respondents, the marital status has a strong relationship with academic performance. Majority of the students were single,

and on the other hand we can see that students who are single are better than married students. Most young people (18-22) in northern Iraq want to get educated and find a job before marriage, as our results showed that about 91.20% of respondents were single and the rest were married.

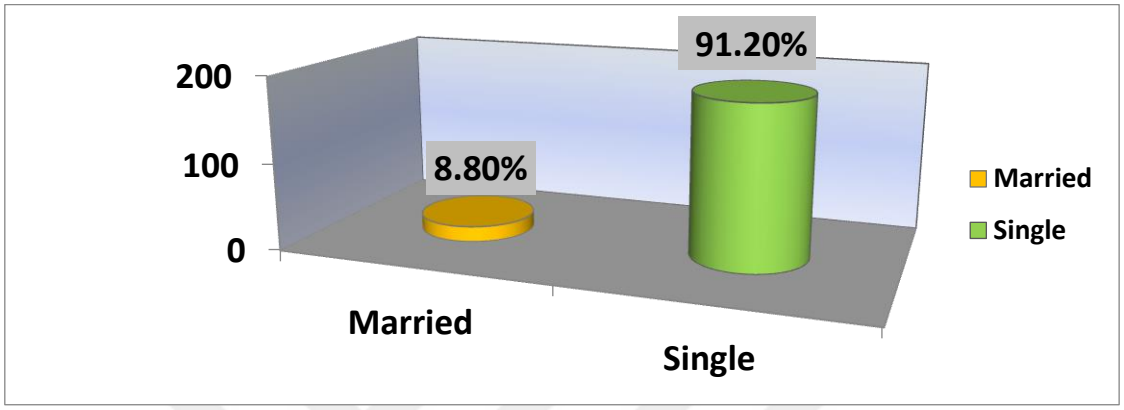

Figure 4.4. Marital status of respondents.

4.2 Reliability Test

The reliability test for our data as shown in the following table:

Table 4.1. Reliability test

Cronbach's alpha	N of Items
0.921	28

Table 4.1. Shows that total number of items is 28 items and Cronbach's alpha is 0.921. Therefore, the data is acceptable to analyze.

4.3. Descriptive Statistics

The aim of this section is to dissect the data that was collected through the survey by Google form with a specific end goal to research the impact of Bologna Process on learning in the Northern Iraq. Descriptive statistics for 28 variables are summarized in the Table (4.2., 4.3., 4.4.) For all variables, the Mean Value, Standard

Deviation, Count and Percentage for the Likert scale (strongly dissagre, dissagre, somehow, agree and strongly agree) shows below.

To demonstrate the influence of Bologna Process on promoting learners' scientific level, descriptive statistics were used to collect and record the average and standard deviation for each variable.

Table 4.2. Environment, support, and academic principles

Variable		Frequency	%	Mean	Standard deviation
The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)	Strongly disagree	30	14.71%	2.83	1.240
	Disagree	56	27.45%		
	Somehow	66	32.35%		
	Agree	22	10.78%		
	Strongly agree	30	14.71%		
Learners' talking time is more than teachers' talking time.	Strongly disagree	20	9.80%	3.11	1.225
	Disagree	44	21.57%		
	Somehow	71	34.80%		
	Agree	31	15.20%		
	Strongly agree	38	18.63%		
Talking opportunities are given to learners. The teacher pays attention to learners' opinion.	Strongly disagree	5	2.45%	4.14	1.005
	Disagree	2	0.98%		
	Somehow	54	26.47%		
	Agree	41	20.10%		
	Strongly agree	102	50.00%		
The teacher pays attention to learners' opinion.	Strongly disagree	21	10.29%	3.43	1.240
	Disagree	16	7.84%		
	Somehow	74	36.27%		
	Agree	41	20.10		
	Strongly agree	52	25.49%		

Table 4.2. Environment, support, and academic principles (continued)

Variable		Frequency	%	Mean	Standard deviation
I am aware of the ways of assessments.	Strongly disagree	17	8.33%	3.33	1.172
	Disagree	24	11.76%		
	Somehow	80	39.22%		
	Agree	41	20.10%		
	Strongly agree	42	20.59%		
In the beginning of the course, the teacher presented the course book and plans of the lecture in detail.	Strongly disagree	18	8.82%	3.91	1.254
	Disagree	7	3.43%		
	Somehow	41	20.10%		
	Agree	48	23.53%		
	Strongly agree	90	44.12%		
The teacher exchanges ideas and opinions about topics and ways of assessments.	Strongly disagree	23	11.27%	3.33	1.261
	Disagree	23	11.27%		
	Somehow	69	33.82%		
	Agree	42	20.59%		
	Strongly agree	47	23.04%		
I feel I have opportunities to show my diverse skills.	Strongly disagree	19	9.31%	3.46	1.272
	Disagree	24	11.76%		
	Somehow	64	31.37%		
	Agree	39	19.12%		
	Strongly agree	58	28.43%		
The teacher uses different ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)	Strongly disagree	11	5.39%	4.06	1.183
	Disagree	11	5.39%		
	Somehow	37	18.14%		
	Agree	40	19.61%		
	Strongly agree	105	51.47%		

Table 4.2. Environment, support, and academic principles (continued)

Variable		Frequency	%	Mean	Standard deviation
I have enough time and period outside of classroom to complete my assignments.	Strongly disagree	19	9.31%	3.26	1.181
	Disagree	29	14.22%		
	Somehow	72	35.29%		
	Agree	48	23.53%		
	Strongly agree	36	17.65%		
The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class.	Strongly disagree	21	10.29%	3.55	1.303
	Disagree	19	9.31%		
	Somehow	55	26.96%		
	Agree	44	21.57%		
	Strongly agree	65	31.86%		
The ways of assessment are matched with objectives of the lectures.	Strongly disagree	19	9.31%	3.30	1.151
	Disagree	19	9.31%		
	Somehow	85	41.67%		
	Agree	44	21.57%		
	Strongly agree	37	18.14%		
I feel I have required skills to find job after graduation because of the skills that I got in university.	Strongly disagree	31	15.20%	3.38	1.357
	Disagree	12	5.88%		
	Somehow	68	33.33%		
	Agree	35	17.16%		
	Strongly agree	58	28.43%		

It is visible in the Table 4.2, 14.71% of respondents strongly disagree, 27.45% disagree, 32.35%somehow, 10.78% agree and 14.71% strongly agree about "The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)". By looking at the results of "Learners' talking time is more than teachers' talking time" can plainly find that 9.80% of respondents strongly disagree, 21.57% disagree, 34.80% somehow, 15.20% agree, 18.63% strongly agree. The results

show that 2.45% of respondents strongly agree, 0.98% agree, 26.47% somehow, 20.10% agree and 50.00% strongly agree about "Talking opportunities are given to learners". Further 8.82% of respondents strongly disagree, 3.43% disagree, 26.47% somehow, 23.53% agree and 44.12% strongly agree about "The teacher pays attention to learners' opinion". Therefore 8.33% of respondents strongly disagree, 11.76% disagree, 39.22% somehow, 20.10% agree and 20.49% strongly agree about "I am aware of the ways of assessments". In the term of "In the beginning of the course, the teacher presented the course book and plans of the lecture in detail" about 8.82% of respondents chosen strongly disagree, 3.43% disagree, 20.10% somehow, 23.53% agree and 44.12$ strongly agree. In the survey 11.27% of respondents selected both, strongly disagree and disagree, 33.82% somehow, 20.59% agree and 23.04 strongly agree about "The teacher exchanges ideas and opinions about topics and ways of assessments". The table also reflected that about 9.31% of respondents strongly disagree, 11.76% disagree, 31.37% somehow, 19.12% agree and 28.43% strongly agree about "I feel I have opportunities to show my diverse skills". An illustrated Table 4.1. shows 5.39% of respondents chose both strongly disagree and disagree, 18.14% somehow, 19.61% agree and 51.47 strongly agree about "The teacher uses diverse ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)". It is easy to see in Table 4.1. That 9.31%of respondents strongly disagree, 14.22 disagree, 35.29 somehow, 23.53% agree and 17.65 strongly agree about "I have enough time and period outside of classroom to complete my assignments". Moreover 10.29% of respondents strongly disagree, 9.31% disagree, 26.96% somehow, 21.57% agree and 31.68% strongly agree about "The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class". It is clearly visible in table 4.1. That 9.31% of respondents chose both strongly disagree and agree, 41.67% somehow, 21.57% agree and 31.86 strongly agree about "The ways of assessment are matched with objectives of the lectures". The table also showed that 15.20% of respondents strongly disagree, 5.88% disagree, 33.33% somehow, 17.16% agree and 28.43% strongly agree about "I feel I have required skills to find job after graduation because of the skills that I got in university".

Table 4.3. Student services and cleanliness, the university offers good services

Variable		Frequency	%	Mean	Standard deviation
University services are regarded well (internet, library, etc.).	Strongly agree	31	15.20%	3.16	1.312
	Disagree	23	11.27%		
	Somehow	77	37.75%		
	Agree	28	13.73%		
	Strongly agree	45	22.06%		
The size of the classrooms is suitable with the learners' number.	Strongly agree	22	10.78%	3.50	1.326
	Disagree	25	12.25%		
	Somehow	49	24.02%		
	Agree	46	22.55%		
	Strongly agree	62	30.39%		
The quality of café and kitchen is good.	Strongly agree	24	11.76%	3.19	1.226
	Disagree	28	13.73%		
	Somehow	75	36.76%		
	Agree	40	19.61%		
	Strongly agree	37	18.14%		
Buildings are clean.	Strongly disagree	16	7.84%	3.95	1.245
	Disagree	9	4.41%		
	Somehow	40	19.61%		
	Agree	44	21.57%		
	Strongly agree	95	46.57%		
Transportation tools (bus) are available.	Strongly agree	43	21.08%	2.77	1.294
	Disagree	43	21.08%		
	Somehow	63	30.88%		
	Agree	28	13.73%		
	Strongly agree	27	13.24%		
The university has provided suitable reading space.	Strongly agree	17	8.33%	3.59	1.254
	Disagree	18	8.82%		
	Somehow	63	30.88%		
	Agree	40	19.61%		
	Strongly agree	66	32.35%		

It is visible in the Table 4.3, 15.20% of respondents strongly disagree, 11.27% disagree, 37.75% somehow, 13.73% agree, 22.06% strongly agree about "University services are regarded well (internet, library, etc.)"

Moreover 10.78% of respondents strongly disagree, 12.25% disagree, 24.02% somehow, 22.55% agree and 30.39% strongly agree about "The size of the classrooms is suitable with the learners' number". Therefore 11.76% of respondents strongly disagree, 13.73% disagree, 36.76% somehow, 19.61% agree and 18.14% strongly agree about "The quality of café and kitchen is good". The table also reflected that about 7.84% of respondents strongly disagree, 4.41% disagree, 19.61% somehow, 21.57% agree and 46.57% strongly agree about "Buildings are clean". In the survey 21.08% of respondents selected both, strongly disagree and disagree, 30.88% somehow, 13.73% agree and 13.24 strongly agree about "Transportation tools (bus) are available". It is visible in the Table 4.1. 8.33% of respondents strongly disagree, 8.82% disagree, 30.88% somehow, 19.61% agree and 32.35% strongly agree about "The University has provided suitable reading space".

Table 4.4. Learning programs and activities

Variable		**Frequency**	**%**	**Mean**	**Standard deviation**
Technological tools such as (computers, data show, smart board, etc. have good impact of the process.	Strongly disagree	12	5.88%	3.871	1.176
	Disagree	11	5.39%		
	Somehow	58	28.43%		
	Agree	45	22.06%		
	Strongly agree	78	38.24%		
Laboratory tools and management of courses are in a good level.	Strongly disagree	18	8.82%	3.16	1.087
	Disagree	27	13.24%		
	Somehow	88	43.14%		
	Agree	46	22.55%		
	Strongly agree	25	12.25%		
Teachers sufficiently use the class time.	Strongly disagree	12	5.88%	3.78	1.143
	Disagree	7	3.43%		

Table 4.4. Learning programs and activities (continued)

Variable		Frequency	%	Mean	Standard deviation
Teachers sufficiently use the class time.	Somehow	67	32.84%		
	Agree	46	22.55%		
	Strongly agree	72	35.29%		
Teachers follow their course books to complete their topics.	Strongly disagree	13	6.37%	3.74	1.195
	Disagree	14	6.86%		
	Somehow	59	28.92%		
	Agree	46	22.55%		
	Strongly agree	72	35.29%		
Topics are organized according to plans.	Strongly disagree	13	6.37%	3.62	1.179
	Disagree	19	9.31%		
	Somehow	60	29.41%		
	Agree	59	28.92%		
	Strongly agree	53	25.98%		
I feel the change in my ability according to the beginning of the course.	Strongly disagree	15	7.35%	3.70	1.234
	Disagree	14	6.86%		
	Somehow	63	30.88%		
	Agree	38	18.63%		
	Strongly agree	74	36.27%		
I am aware of detailed information that is related to learners.	Strongly disagree	13	6.37%	3.32	1.074
	Disagree	22	10.78%		
	Somehow	90	44.12%		
	Agree	45	22.06%		
	Strongly agree	34	16.67%		
The teacher uses different activities during the class.	Strongly disagree	16	7.84%	3.41	1.169
	Disagree	19	9.31%		
	Somehow	81	39.71%		
	Agree	41	20.10%		
	Strongly agree	47	23.04%		
Do you feel bored in class?	Strongly disagree	32	15.69%	2.66	1.109
	Disagree	55	26.96%		
	Somehow	87	42.65%		
	Agree	10	4.90%		
	Strongly agree	20	9.80%		

Table 4.4. Shows that 5.88% of respondents strongly disagree, 5.39% disagree, 28.43% somehow, 22.06% agree and 38.24% strongly agree about "Technological tools such as (computers, data show, smart board, etc. have good impact of the process". Therefore 8.82% of respondents strongly disagree, 13.24% disagree, 43.14% somehow, 22.55% agree and 12.25% strongly agree about "Laboratory tools and management of courses are in a good level". Also 5.88% of respondents strongly disagree, 3.43% disagree, 32.84% somehow, 22.55% agree and 35.29% strongly agree about "Teachers sufficiently use the class time". An illustrated Table 4.1. Shows 6.37% of respondents strongly disagree, 6.86% disagree, 28.92% somehow, 22.55% agree and 35.29 strongly agree about "Teachers follow their course books to complete their topics". In addition, 6.37% of respondents strongly disagree, 9.31% disagree, 29.41% somehow, 25.98% agree and 28.92% strongly agree about "Topics are organized according to plans". Further, 7.35% of respondents strongly disagree, 6.86% disagree, 30.88% somehow, 18.63% agree and 36.27% strongly agree about "I feel the change in my ability according to the beginning of the course". ". In the term of "I am aware of detailed information that is related to learners" about 6.37% of respondents chosen strongly disagree, 10.78% disagree, 44.12% somehow, 22.06% agree and 16.67% strongly agree. Moreover 7.84% of respondents strongly disagree, 9.31% disagree, 39.71% somehow, 20.10% agree and 23.04% strongly agree about "The teacher uses different activities during the class". The table also reflected that about 15.69% of respondents strongly disagree, 26.96% disagree, 42.65% somehow, 4.90% agree and 9.80% strongly agree about "Do you feel bored in class".

4.4. Comparison of Bologna Process by Level of Education

Table 4.5. Comparison of respondents' level of education by demographics

Variables		Level of Education (%)				$\chi 2$	P-value
		Dissatisfied	Neutral	Satisfied	Total		
Gender	Male	35.7	35.7	28.6	100.0	2.880[a]	0.237
	Female	25.0	39.1	35.9	100.0		
Marital- status	Married	11.1%	44.4%	44.4%	100.0	3.754[a]	0.153
	Single	32.8%	36.6%	30.6%	100.0		
Age group	18	26.7%	42.2%	31.1%	100.0	6.642[a]	0.355
	19	26.5%	35.3%	38.2%	100.0		
	20	43.2%	27.3%	29.5%	100.0		
	More than 21	29.8%	44.7%	25.5%	100.0		

It can be seen in the Table 4.5 the relationship between social demographic factors and level of education. The study indicated that there is a non significant relationship between the socio-demographic factors and level of education.

While it did not reveal significant relationship between "level of education" and other independent variables such as gender ($\chi 2$=2.880 p: 0.237), marital status ($\chi 2$ =3.754 p: 0.153) and age group ($\chi 2$=6.642 p: 0.355).

Table 4.6. Comparison of respondent level of education by environment academic

Dimensions		Level of Education (%)				χ2	P-value
		Dissatisfied	Neutral	Satisfied	Total		
The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)	Disagree	34.9	33.6	31.6	100.0	5.277[a]	0.071
	Agree	19.2	48.1	32.7	100.0		
Learners' talking time is more than teachers' talking time.	Disagree	33.3	30.4	36.3	100.0	8.317[a]	0.016
	Agree	26.1	50.7	23.2	100.0		
Talking opportunities are given to learners.	Disagree	50.8	18.0	31.1	100.0	19.845[a]	0.000
	Agree	22.4	45.5	32.2	100.0		
The teacher pays attention to learners' opinion	Disagree	44.1	21.6	34.2	100.0	30.269[a]	0.000
	Agree	15.1	55.9	29.0	100.0		

Table 4.6. Comparison of respondent level of education by environment academic (continued)

Dimensions		Level of Education (%)				χ2	P-value
		Dissatisfied	Neutral	Satisfied	Total		
I am aware of the ways of assessments.	Disagree	43.8	21.5	34.7	100.0	36.676[a]	0.000
	Agree	12.0	60.2	27.7	100.0		
In the beginning of the course, the teacher presented the course book and plans of the lecture in detail.	Disagree	45.5	22.7	31.8	100.0	12.236[a]	0.002
	Agree	23.9	44.2	31.9	100.0		
The teacher exchanges ideas and opinions about topics and ways of assessments.	Disagree	42.6	21.7	35.7	100.0	29.95[a]	0.000
	Agree	15.7	57.3	27.0	100.0		
The teacher uses different ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)	Disagree	42.4	13.6	44.1	100.0	19.94[a]	0.000
	Agree	26.2	46.9	26.9	100.0		
I have enough time and period outside of classroom to complete my assignments.	Disagree	39.2	25.8	35.0	100.0	17.581[a]	0.000
	Agree	19.0	25.8	35.0	100.0		
The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class.	Disagree	34.7	27.4	37.9	100.0	7.550[a]	0.023
	Agree	27.5	45.9	26.6	100.0		
The ways of assessment are matched with objectives of the lectures.	Disagree	39.0	25.2	35.8	100.0	20.213[a]	0.000
	Agree	18.5	55.6	25.9	100.0		
I feel I have required skills to find job after graduation because of the skills that I got in university.	Disagree	36.9	22.5	40.5	100.0	22.830[a]	0.000
	Agree	23.7	54.8	21.5	100.0		

While it did not reveal significant relationship between "The department provides different facilities for learners such as; (activities, tourism, teaching aids,

etc.)" and "level of education" ($\chi 2$= 5.277, p: 0.071). According to result 19.2% of the respondents chosen agree about the department provides different facilities for learners and increased to 32.7% satisfied on the term of level of education.

The relationship between "Learners' talking time is more than teachers' talking time." And level of education ($\chi 2$= 8.317, p: 0.016) is significant. The majority of respondents, 50.7% selected agree on the term of the Learners' talking time and decreased to 23.2% satisfied about level of education.

A significant factor was observed in the relation "Talking opportunities are given to learners" and "level of education" ($\chi 2$= 19.845, p: 0.000). The highest percentage of respondents, 50.8% disagree about Talking opportunities and decreased to 31.1% satisfied about level of education.

There is a significant relationship between "The teacher pays attention to learners' opinion" and "Level of Education" ($\chi 2$= 30.269, p: 0.000). On the other hand, the results represent that a combined of 55.9% of respondents chosen agree in the row of pays attention and decreased to 29.0% satisfied about Level of Education.

Further, the results represented that the relationship between "I am aware of the ways of assessments" and " Level of Education" ($\chi 2$=36.676, p=0.000) is significant. Moreover, nearly 60.2% of the respondents selected agree about aware of the ways of assessments and decreased to 27.7% satisfied on the term Level of Education.

Also, the relationship is significant between "In the beginning of the course, the teacher presented the course book and plans of the lecture in detail." and "Level of Education" ($\chi 2$= 12.236 p: 0.002). The results indicate that 45.5% of respondents chosen disagree about teacher presented the course book and plans and increased to 31.08% satisfied on the term of Level of Education.

The table reflected that the relationship between "The teacher exchanges ideas and opinions about topics and ways of assessments" and "Level of Education" is significant ($\chi 2$= 19.940, p: 0.000). Also, observed that nearly 46.9% of the respondents selected agree about the teacher exchanges ideas and opinions about topics, while an increased percentage which was 26.9% can be seen in the column of satisfied with the term of Level of Education. The results indicate that there is a

significant relationship between "The teacher uses diverse ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)" and "Level of Education" ($\chi 2$= 19.940, p: 0.000). The result also indicated that 26.2% of the respondents chosen agree about the teacher uses diverse ways of assessment to 26.9% satisfied on the term of Level of Education.

By looking at the result, a significant relationship can be seen between "I have enough time and period outside of classroom to complete my assignments." and " Level of Education" ($\chi 2$= 17.581, p: 0.000). The highest percentage of respondents which were 39.2% chosen disagree in the term of I have enough time and period outside of classroom and increased to 35.0% of them were satisfied about Level of Education.

The result of Table 4.6. Portrayed that the relation between "The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class" and "level of education" ($\chi 2$= 7.550, p: 0.023) is significant. Going through the raw percentage, we can observe that nearly 45.9% of the respondents chosen agree with term of the teacher pays attention and increased to 26.6% of respondents were satisfied about Level of Education.

Moreover, the output illustrated a significant relationship "The ways of assessment are matched with objectives of the lectures" and "level of education" ($\chi 2$= 20.213, p: 0.000). According to the row percentage, nearly 55.6% of the respondents selected agree in the raw of The ways of assessment and increased to 25.9% satisfied about Level of Education.

Also, the findings represented that the relationship between "I feel I have required skills to find job after graduation because of the skills that I got in university" and " Level of Education" ($\chi 2$= 22.830, p: 0.000) is significant. Moreover, nearly 54.8% of the respondents selected agree about I feel I have required skills and decreased to 21.5% satisfied on the term Level of Education.

Table 4.7. Comparison of respondent level of education by services

Dimensions		Level of Education (%)				χ2	P-value
		Dissatisfied	Neutral	Satisfied	Total		
University services are regarded well (internet, library, etc.)	Disagree	36.6	30.5	32.8	100.0	8.476[a]	0.014
	Agree	20.5	49.3	30.1	100.0		
The size of the classrooms is suitable with the learners' number.	Disagree	38.5	28.1	33.3	100.0	7.625[a]	0.022
	Agree	24.1	45.4	30.6	100.0		
The quality of café and kitchen is good.	Disagree	37.8	28.3	33.9	100.0	12.795[a]	0.002
	Agree	19.5	51.9	28.6	100.0		
Buildings are clean.	Disagree	38.5	24.6	36.9	100.0	6.632[a]	0.036
	Agree	27.3	43.2	29.5	100.0		
Transportation tools (bus) are available.	Disagree	32.9	32.2	34.9	100.0	6.086[a]	0.048
	Agree	25.5	50.9	23.6	100.0		
The university has provided suitable reading space.	Disagree	42.9	26.5	30.6	100.0	14.672[a]	0.001
	Agree	19.8	47.2	33.0	100.0		

As it is visible in the table 4.7., there is a significant relationship between "University services are regarded well (internet, library, etc.)" and "Level of Education" ($\chi2$= 8.476, p: 0.014). The highest percentage of respondents which were 49.3% chosen agree on the term of University services and decreased to 30.1% of them were satisfied about Level of Education.

According to the result, a significant relationship can be observed between "The size of the classrooms is suitable with the learners' number" and "Level of Education" ($\chi2$= 7.625, p: 0.022). Going through the raw percentage, we see that nearly 45.4% of the respondents chosen agree about The size of the classrooms and increased to 30.6% of them were satisfied about Level of Education.

Furthermore, output indicated that there is a significant relationship between "The quality of café and kitchen is good" and "Level of Education"($\chi2$= 12.795, p:

0.002). Also the result showed that nearly 51.9% of the respondents selected agree in the row of the quality of café and increased to 28.6% satisfied about Level of Education.

As found in the results, the relationship between "Buildings are clean" and "Level of Education" ($\chi 2$=6.632, p: 0.036) is significant. On the other hand, the results represent that a combined of 43.2% of respondents chosen agree in the row of Buildings and decreased to 29.5% of them satisfied in the subject of Level of Education.

The relationship between "Transportation tools (bus) are available" And level of education ($\chi 2$= 6.086, p:0.048) is significant. The majority of respondents, 50.9% are selected agree on the term of Transportation tools and decreased to 23.6% satisfied about level of education.

A significant factor was observed in the relation "The university has provided suitable reading space" and "level of education" ($\chi 2$= 14.672, p: 0.001). The highest percentage of respondents, 47.2% agree about reading space and decreased to 33.0% satisfied about level of education.

Table 4.8. Comparison of respondent level of education by program and activity

Dimensions		**Level of Education (%)**				**$\chi 2$**	**P-value**
		Dissatisfied	**Neutral**	**Satisfied**	**Total**		
Technological tools such as (computers, data show, smart board, etc., have good impact of the process.	Disagree	38.3	23.5	38.3	100.0	10.972[a]	0.004
	Agree	26.0	46.3	27.6	100.0		
Laboratory tools and management of courses are in a good level.	Disagree	35.3	30.8	33.8	100.0	7.161[a]	0.025
	Agree	22.5	49.3	28.2	100.0		
Teachers sufficiently use the class time.	Disagree	46.5	22.1	31.4	100.0	20.945[a]	0.000

Table 4.8. Comparison of respondent level of education by program and activity (continued)

Dimensions		Level of Education (%)				χ2	P-value
		Dissatisfied	Neutral	Satisfied	Total		
	Agree	19.5	48.3	32.2	100.0		
Teachers follow their course books to complete their topics.	Disagree	36.0	31.4	32.6	100.0	2.677[a]	0.262
	Agree	27.1	41.5	31.4	100.0		
Topics are organized according to plans.	Disagree	44.6	21.7	33.7	100.0	21.164[a]	0.000
	Agree	19.6	50.0	30.4	100.0		
I feel the change in my ability according to the beginning of the course.	Disagree	39.1	22.8	38.0	100.0	15.065[a]	0.001
	Agree	24.1	49.1	26.8	100.0		
I am aware of detailed information that is related to learners.	Disagree	36.8	28.0	35.2	100.0	12.210[a]	0.002
	Agree	21.5	51.9	26.6	100.0		
The teacher uses different activities during the class.	Disagree	37.9	26.7	35.3	100.0	13.354[a]	0.001
	Agree	21.6	51.1	27.3	100.0		
I feel bored in class.	Disagree	30.5	38.5	31.0	100.0	0.820[a]	0. 664
	Agree	33.3	30.0	36.7	100.0		

Table (4.8.), There is a significant relationship between " Technological tools such as (computers, data show, smart board, etc., have good impact of the process" and "Level of Education" ($\chi2$= 10.972, p: 0.004). On the other hand, the results represent that a combined of 46.3% of respondents chosen agree in the row of Technological tools and decreased to 27.6% satisfied about Level of Education.

Further, the results represented that the relationship between "Laboratory tools and management of courses are in a good level" and " Level of Education" ($\chi2$=7.161,

p=0.025) is significant. Moreover, nearly 49.3% of the respondents selected agree about Laboratory tools and decreased to 28.2% satisfied on the term Level of Education.

Also, the relationship is significant between "Teachers sufficiently use the class time" and "Level of Education" ($\chi 2$= 20.945 p: 0.000). The results indicate that 46.5% of respondents chosen disagree about class time and increased to 31.4% satisfied on the term of Level of Education.

Although it did not disclose a significant relationship between "Teachers follow their course books to complete their topics" and "Level of Education" is significant ($\chi 2$= 2.677, p: 00.262). It is observed that nearly 41.5% of the respondents selected agree about Teachers follow their course books, while an increased percentage which was 31.4% can be seen in the column of satisfied with the term of Level of Education.

The results appeared that there is a significant relationship between "Topics are organized according to plans" and "Level of Education" ($\chi 2$= 21.164, p: 0.000). The result also indicated that nearly 50.0% of the respondents chosen agree about The topic to 26.9% satisfied on the term of Level of Education.

By looking at the results, a significant relationship can be seen between "I feel the change in my ability according to the beginning of the course" and " Level of Education" ($\chi 2$= 15.065, p: 0.001). The highest percentage of respondents which were 49.1% chosen agree in the term of I feel the change in my ability and increased to 26.8% of them were satisfied about Level of Education.

Moreover, the output illustrated a significant relationship "I am aware of detailed information that is related to learners" and "level of education" ($\chi 2$= 12.210, p: 0.001). According to the row percentage, nearly 51.9% of the respondents selected agree in the raw of The aware of detailed information and increased to 26.6% satisfied about Level of Education.

There is a significant relation between "The teacher uses different activities during the class" and "Level of Education" ($\chi 2$= 13.354, p: 0.001). The highest percentage of respondents which were 51.1% chosen agree on the term of using different activities and decreased to 27.3% of them were satisfied about Level of Education.

Although there is no significant relationship between "I feel bored in class" and "Level of Education" ($\chi 2$=0.820, p: 0.664) is significant. On the other hand, the results represent that a combined of 38.5% of respondents chosen disagree in the row of bored and decreased to 31.0% of them satisfied in the subject of Level of Education.

4.5. Binary Logistic Regression for Level of Education Characteristics

Descriptions of the variables used in model are presented in the below tables. The variables in the tables below were used to measure the effectiveness of the environment, the service provided and the programs provided. The analysis of the answers given as “disagree” and “agree” is given in detail in the tables. In this part of the study, only the options I agree and disagree are included. Somehow option has been omitted in this section.

Table 4.9. Environment academic dimension code

Variables	Definition of variables	Mean	Standard deviation
The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)	0: Disagree 1: Agree	0.25	0.437
Learners’ talking time is more than teachers’ talking time.	0: Disagree 1: Agree	0.34	0.474
Talking opportunities are given to learners.	0: Disagree 1: Agree	0.70	0.459
The teacher pays attention to learners’ opinion	0: Disagree 1: Agree	0.46	0.499
I am aware of the ways of assessments.	0: Disagree 1: Agree	0.41	0.492
In the beginning of the course, the teacher presented the course book and plans of the lecture in detail.	0: Disagree 1: Agree	0.68	0.469
I feel I have opportunities to show my diverse skills.	0: Disagree 1: Agree	0.56	0.485
The teacher exchanges ideas and opinions about topics and ways of assessments.	0: Disagree 1: Agree	0.44	0.497

Table 4.9. Environment academic dimension code (continued)

Variables	Definition of variables	Mean	Standard deviation
The teacher uses different ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)	0: Disagree 1: Agree	0.71	0.455
I have enough time and period outside of classroom to complete my assignments.	0: Disagree 1: Agree	0.41	0.439
The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class.	0: Disagree 1: Agree	0.53	0.500
The ways of assessment are matched with objectives of the lectures.	0: Disagree 1: Agree	0.40	0.490
I feel I have required skills to find job after graduation because of the skills that I got in university.	0: Disagree 1: Agree	0.46	0.499

Table 4.9. Shows the mean and standard deviation values of the answers given for the effect of the environment on the academic dimension. When the table is examined, the variable with the highest average is the teacher uses diverse ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.) (0.71) in the table. It is seen that the variable with the lowest average is the department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.) (0.25). Mean of responses to other variables are Talking opportunities are given to learners (0.70), In the beginning of the course, the teacher presented the course book and plans of the lecture in detail (0.68).

The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class (0.53), The teacher pays attention to learners' opinion(0.46), I feel I have required skills to find job after graduation because of the skills that I got in university(0.46), the teacher exchanges ideas and opinions about topics and ways of assessments (0.44), I am aware of the ways of assessments (0.41), I have enough time and period outside of classroom to complete

(0.41), the ways of assessment are matched with objectives of the lectures (0.40) and Learners' talking time is more than teachers' talking time (0.40) respectively.

Table 4.10. Services dimension code

Variables	Definition of variables	Mean	Standard deviation
University services are regarded well (internet, library, etc.)	0: Disagree 1: Agree	0.36	0.481
The size of the classrooms is suitable with the learners' number.	0: Disagree 1: Agree	0.53	0.500
The quality of café and kitchen is good.	0: Disagree 1: Agree	0.38	0.486
Buildings are clean.	0: Disagree 1: Agree	0.68	0.467
Transportation tools (bus) are available.	0: Disagree 1: Agree	0.27	0.445
The university has provided suitable reading space.	0: Disagree 1: Agree	0.52	0.501

Table 4.10. Shows the mean and standard deviation values of the answers given for the effect of the services dimension code on the academic dimension. When the table is examined, the variable with the highest average is Buildings are clean (0.68) in the table. It is seen that the variable with the lowest average is Transportation tools (bus) are available (0.27). Mean of responses to other variables are the size of the classrooms is suitable with the learners' number (0.53), The university has provided suitable reading space (0.52), The quality of café and kitchen is good (0.38) and University services are regarded well (internet, library, etc.) (0.36) respectively.

Table 4.11. Program and activity dimension code

Variables	Definition of variables	Mean	Standard deviation
Technological tools such as (computers, data show, smart board, etc.,) have good impact of the process.	0: Disagree 1: Agree	0.60	0.490
Laboratory tools and management of courses are in a good level.	0: Disagree 1: Agree	0.35	0.478
Teachers sufficiently use the class time.	0: Disagree 1: Agree	0.58	0.495
Teachers follow their course books to complete their topics.	0: Disagree 1: Agree	0.58	0.4954
Topics are organized according to plans.	0: Disagree 1: Agree	0.55	0.499
I feel the change in my ability according to the beginning of the course.	0: Disagree 1: Agree	0.55	0.499
I am aware of detailed information that is related to learners.	0: Disagree 1: Agree	0.39	0.488
The teacher uses different activities during the class.	0: Disagree 1: Agree	0.43	0.496
I feel bored in class.	0: Disagree 1: Agree	0.15	0.355

Table 4.11. Shows the mean and standard deviation values of the answers given for the effect of the Program and activity dimension code on the academic dimension. When the table is examined, the variable with the highest average is Technological tools such as (computers, data show, smart board, etc.,) have good impact of the process (0.60) in the table. It is seen that the variable with the lowest average is I feel bored in class (0.15). Mean of responses to other variables are Teachers sufficiently use the class time (0.58), Teachers follow their course books to complete their topics (0.58), Topics are organized according to plans (0.55), I feel the change in my ability according to the beginning of the course (0.55), The teacher uses different activities during the class (0.43), I am aware of detailed information that is related to learners (0.39) and Laboratory tools and management of courses are in a good level (0.35) respectively.

4.6. Model results for Level of Education Characteristics

There is zero close related statistics in logistic regression to the coefficient of dedication R^2 the product summary a little approximation. Cox and Snell's R^2 primarily based on' likelihood', in any situation, its most severe may be under 1.0, making it hard to understand. Right here it is indicating that 22.8 % of the perturbation in the dependent variable is clarified through the logistic model. The Nagelkerke R^2 variation which does vary from zero to one is a far more dependable way of measuring the connection. Nagelkerke R^2 will usually be bigger compared to the cox as well as Snell measure. Nagelkerke R^2 is an element of SPSS output within the product summary' table and it is the most found of the R^2 estimates.

An answer to model chi square is the Lemeshow and Hosmer (2000) as found in test that divides subjects into ten ordered groups of topics and compares the amount in each team (predicted) on the amount anticipated through the logistic regression version (observed). The ten ordered groups are made according to their estimated probability; individuals with appraisal likelihood below 0.1 from a single team, so on, a maximum of all those with likelihood 0.9 to 1.0. All these groups are further split into 2 groups depending on the real found outcome varying (involved, non-involved). The estimate frequencies for every one of the cells are from the version. A likelihood (p) great is computed through the Chi square distribution with eight digresses of flexibility to evaluate the strike of the logistic design. If the HL goodness-of-fit test statistic (The Hosmer-Lemeshow test (HL test) is a goodness of fit test for logistic regression) is much more visible than 0.05, as we wish for well-fitting versions, we neglect to refuse the null hypothesis that there is absolutely no distinction between observed and model predicted values, implying the model's estimation healthy the information at a suitable level.

The relative odds ratio, or estimated "odds ratio," or relative risk as the commonly used English equivalent is a degree of outcome size. It is particularly crucial in Bayesian statistics and logistic regression. It is the ratio of the odds ratio of an event on the odds ratio for one team on the odds ratio for another team; or sample estimation with this. These 2 organizations could be, for instance, male as well as female groups, experimental as well as management groups, and some other two-part classification.

A ratio of one to relative probabilities implies that the event or circumstance in question is also likely for equally organizations. If this ratio is more than one, the event or situation is much more apt for the very first team. The distant relative likelihood ratio cannot be much less than zero. As the likelihood ratio of the very first team approaches zero, the distant relative likelihood ratio approaches 0; when the probability ratio of the 2nd ruble approaches 0, the distant relative likelihood ratio diverges to plus infinity.

The significance of the coefficients of the impartial variables within the product really should be examined for the obtained design to make sense. The establishment of the absolute best type with the minimum number of variables is guided by tests. Since the logistic regression design is not just like the classical regression version, likelihood ratio check, Score check as well as Wald assessments are used to test the coefficients. The primary issue with this is whether the variable to be analyzed about the reliant variable of the unit has much more info than the non-variable model under examination.

Table 4.12. Estimation of the logistic regression model results for environment academic dimension

Variables	Coefficient	Sta. Error	Wald Test	P-value	Odd Ratio
The department provides	1.267	.344	13.532	.000***	3.551
Learners' talking time	-.022	.396	.003	.956	.978
Talking opportunities	-.328	.421	.605	.437	.721
The teacher pays attention	-.315	.399	.623	.430	.730
I am aware of the ways	.029	.411	.005	.944	1.029
In the beginning of the course,	.012	.393	.001	.976	1.012
The teacher exchanges ideas	.834	.378	4.875	.027***	2.434
The teacher uses different ways	-.013	.399	.001	.975	.988
I have enough time and period	-.503	.366	1.889	.169	.605
The teacher pays attention to	.539	.395	1.861	.172	1.713
The ways of assessment	-.450	.419	1.154	.283	.638
I feel I have required skills	.188	.385	.238	.626	1.206
Consonant	.309	.343	.815	.367	1.362

R-squared = 0.169

As seen in Table 4.12, there are only two variables that have a significant effect on education level (p≤0.05). "The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)" has a positive effect on the level of education. On the other hand, the results indicated that the odd ratio of the department provides for level of student science (3.551) times more likely to involved the level of education. In addition, one unit of change in the department provides variable causes an increase of 1.26 in the education level.

The result of statistically significant coefficient showed that "The teacher exchanges ideas and opinions about topics and ways of assessments" has a positive effect on the level of education. On the other hand, moreover the results indicated that the odd ratio of the teacher exchanges ideas for level of student science (2.434) times more likely to involved the level of education. In addition, one unit of change in the teacher exchanges ideas variable causes an increase of 0.834 in the education level. R-squared shows us the power of the independent variable to explain the variation in the dependent variable. In this case, according to table 4.12, independent variables explain about 16% of the variation in the dependent variable.

Table 4.13. Estimation of the logistic regression model results for services dimension

Variables	Coefficient	Sta. Error	Wald Test	P-value	Odd Ratio
University services	-.484	.371	1.704	.192	.616
The size of the classrooms	.592	.305	3.773	.049***	1.553
The quality of café	-.272	.346	.619	.432	.762
Buildings are clean	-.459	.357	1.651	.199	.632
Transportation tools	.543	.372	2.126	.145	1.721
Provided reading space.	-.180	.366	.241	.623	.836
Consonant	.702	.342	4.224	.064	2.019

R-square = 0.104

As seen in Table 4.13., there is only one variable that has a significant effect on education level (p≤0.05). "The size of the classrooms such as; (activities, tourism, teaching aids, etc.)" has a positive effect on the level of education. On the other hand, the results indicated that the odd ratio of the size of the classrooms for level of student science (1.553) times more likely to involved the level of education. In addition, one

unit of change in the size of the classroom's variable causes an increase of 0.592 in the education level. R-squared shows us the power of the independent variable to explain the variation in the dependent variable. In this case, according to table 4.13, independent variables explain about 10% of the variation in the dependent variable.

Table 4.14. Estimation of the logistic regression model results for program and activity dimension

Variables	Coefficient	Sta. Error	Wald Test	P-value	Odd Ratio
Technological tools	-.069	.389	.031	.860	.934
Laboratory tools	.535	.373	2.063	.151	1.708
Teachers sufficiently use	-.213	.485	.193	.661	.808
course books to complete	.144	.383	.142	.706	1.155
Topics are organized	.776	.423	3.373	.048***	1.460
I feel the change in my ability	-.372	.411	.817	.366	.689
information that is related to	.142	.376	.142	.706	1.152
uses different activities	.050	.394	.016	.899	1.051
I feel bored in class.	.046	.414	.013	.911	1.047
Consonant	.174	.428	.166	.683	1.191

R-square = 0.132

As seen in Table 4.14, there are only one variable that have a significant effect on education level ($p \leq 0.05$). "Topics are organized according to plans." has a positive effect on the level of education. On the other hand, the results indicated that the odd ratios of the topics are organized for level of student science (1.460) times more likely to involved the level of education. In addition, one unit of change in the Topics are organized variable causes an increase of 0.776 in the education level. R-squared shows us the power of the independent variable to explain the variation in the dependent variable. In this case, according to table 4.14, independent variables explain about 13% of the variation in the dependent variable.

5. CONCLUSSION

The target of this thesis is usually to determine the most crucial factors impacting the promotion of the systematic level of learners by utilizing binary logistic regression; the primary conclusions are summarized on the foundation of the results obtained. The researcher needs to check out his study goals to accomplish the aim of every study. Throughout this investigation, our goal is determining an identification of the factors that lead to increasing the level of students' learning in northern Iraq. The researcher has first, a descriptive of the sociodemographic attributes of the respondents and info used from the independent variable.

Investigation to evaluate information collections concentrates on utilizing logistic regression and Chi square. In the meantime, it next describes the consequences on the variables that have investigated the research on promoting learners' scientific level.

For categorical variables, statistical analysis has been utilized showing percentages and frequencies. Pearson's Chi square was accustomed to uncover a correlation between the categorical variables. Based upon the empirical outcomes, the variables of (Learners' talking period, Talking options, taking care of learners' viewpoint, assessments ways, present the program publication, exchange ideas, evaluation various ways, time that is enough, search and learn outdoors, lecture goals, obtain function after graduation, Faculty services, classroom's sizing, Change abilities, organize topics, class time, Laboratory tools, Technological tools, reading space, Transportation tools, cleaning, cafe quality, aware of different activities and detailed information) have become the substantial connection with the involved level of education.

Students' responses on effect of bologna procedure on promoting learners' scientific level attributes across socio demographic characteristics and dimensions of sustainable promoting learners' scientific level like environment, academic, and services are captured on an alternative Likert scale. Firstly, descriptive figures were estimated to recognize the value of respondents' reviews for the socio-demographic characteristics.

Further, chi square ($\chi 2$) has been 204 accustomed to evaluate the mean difference in reactions of the students for the across socio-demographic variables and dimensions promoting learners' scientific level.

Furuzan 2012, Although the Bologna Declaration was the topic of discussions in academia and among commercial bodies, there are already changes that are significant within the Turkish schooling system influenced by the key tenants of the Bologna Process. The adaption of the two tier system initiated the procedure of substantial reforms in numerous Turkish HEIs. It will help Turkish HEIs to get momentum. Degree recognition, quality assurance, qualification framework, along with a completely new accreditation device were the main themes of the Bologna Process reform initiatives in Turkey. Nevertheless, once the qualification framework, learning results and ECTS applications of Turkey, particularly, at the overseas levels are compared, it could be claimed that there's not sufficient integration at the national level.

As Samarzija and Lucin (2011) mention there stay 2 primary challenges for Turkey to understand the complete implementation of ECTS: computing credits regarding student work load and connecting them with learning results. Also, Anja P. Jakobi et al (2009) Bologna is a type of' real time experiment' and assessments should be produced once again continuously. The procedure is not yet long established and the main objectives of introducing a two cycle framework and credits have been a meaningful change for many national systems. It may be that after the nations have accommodated for this transformation, extra attention is provided to lifelong learning. In this light, the plea to rise activities on these problems, as requested by the London Communique´, is a crucial step. Furthermore, the launch of an overarching qualification framework - as discussed in Bologna and beyond - will certainly provide a typical concept of institutionally recognized lifelong learning in Europe, as well as help support the unification

On another hand, Ana Rute et al (2008) Results suggest that the applications which restructured to stay within the Bologna principles were susceptible to higher demand than equivalent applications which didn't restructure; that influence, nonetheless, differs across fields of analysis and with system size. Joakim et al (2010) The results revealed perturbation in terminology and ideas for the main topic in addition

to the scientific foundation of its demarcation between the main topic along with other topics bundled in the research programmes and the relationship of its to the career. These variants are connected to the assortment of research orientations under controversy in the Scandinavian countries: Caring Science and nursing Science; that represent various awareness domains, concentration, visions and challenges for the discipline. Additionally, Miguel et al (2009) Results confirm a beneficial effect on the Bologna procedure on the need for programs, that differs with program size plus across areas of study.

Based on the results of Amelia et al. (2014) the results suggest an upbeat perception about the paradigm change from coaching to learning. Although it is still to be seen whether students and academics would verify the inclination voiced by the leadership of the surveyed facilities. On another hand, Yılmaz et al. (2017) Major results show that research assistants have not much info on the process. Many of them believe the main goal of Bologna procedure is creating a European identity; however, it is difficult to speak about an identity now. Additionally, research assistants do not perceive Turkish schooling and researchers in European advanced schooling area. On the other side they do not believe Bologna procedure as being a threat to national identity. As for the setup of Bologna procedure, it is viewed as a bureaucratic process boosting the workload of academics which lacks democratic participation. Additionally, Sofiya (2017) for every one of pros were identified by the stages and cons are considered. It has been realized that per decade Ukraine has accomplished a lot. Quantity of papers are already created as well as approved: Law of Ukraine "On Higher Education", the suggestions for 2015/16 academic year curricular advancement, types of the advanced schooling documents, tools for graduates' work, the resolution "On the List of Knowledge Areas and Specialties for Advanced schooling Applicants Training" etc. This shows a tremendous intensification of initiatives of Ukraine in joining the European Advanced schooling Area.

In our thesis, where we evaluated the Bologna process for Iraq, similar results to the studies in the literature were obtained. Therefore, we believe that the study contributes to the literature Iraq and Turkey.

Figures 4.1, 4.2, 4.3 along with 4.4 show the demographic information of the students participating in the research. Whenever the visuals are examined, the faculty with the greatest attendance is Faculty of Art form and has a speed of 22.10 %. The top participants are males with a speed of 54.90 %. It is found that the individuals are nineteen years of age with a speed of 33.30 %. Additionally, with a big ratio of 91.20 %, it is observed in the figures that the participants are single. Means, standard deviations and proportions of the answers provided by the individuals to the questions are provided frequency tables within the tables 4.1., 4.2., 4.3. Along with 4.4.

$\chi 2$ analysis was accustomed to analyze the connection between demographic info, academic environment, system offered along with the programs and activities utilized on training level. The outcomes of the $\chi 2$ analysis are provided in detail in tables 4.5, 4.6, 4.7 as well as 4.8. It is observed in information in the tables that there is a significant connection between the variables. Logistic regression is a statistical technique utilized to evaluate a data set with a single or even more independent variables which decide an outcome. In Tables 4.12, 4.13 as well as 4.14, variables which have a major impact on education level had been obtained by logistic regression analysis and the outcomes are provided in information in the tables.

In this thesis analysis titled "The Effect of the Bologna Process on Enhancing the Scientific Level of Students: A good example of Soran University", it was noticed the brand-new training system done in Northern Iraq had a huge effect on the education level and students have been happy with this process. We feel the education system has deficiencies and the correction of these deficiencies can lead to improved quality outcomes. Finally, the point that education is a crucial element of the improvement of the nation as well as a major investment in education can lead to stronger economy is undeniable.

The study recommends Northern Iraq should provide continuous training courses for teachers to be equipped with new information and technologies, also training courses are required for administrators to run the program successfully. Furthermore, Government should provide the required and modern infrastructure that is necessary to manage the Bologna process according to the standards.

Future study should integrate additional data collecting tools with the questionnaire in order to obtain a better knowledge of the issue of increasing students' scientific level. Furthermore, while the study's sample size was very modest, future research can replicate it with a much bigger sample size.

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EXTENDED SUMMARY IN TURKISH
(GENİŞLETİLMİŞ TÜRKÇE ÖZET)

ÖĞRENCİLERİN BİLİMSEL DÜZEYİNİ GELİŞTİRME KONUSUNDA BOLOGNA SÜRECININ ETKİSİ: SORAN ÜNİVERSİTESİ'NİN BİR ÖRNEĞİ

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Kuzey Irak yeni bir eğitim sistemi ile gelişim göstermektedir, Kuzey Irak hükümeti Avrupa Yüksek Öğretim sistemi ile ana hedefi Bologna sürecinin bir parçası olmak için bu sistemi uygulamaktadır. Kuzey Irak Yüksek Öğretim sistemindeki reformlar ülke için gerekli olmasının yanı sıra değişimin olumlu sonuçları görülmektedir. Bu araştırmanın amacı, Bologna Sürecinin Kuzey Irak'ta öğrenci bilgisini üzerindeki etkisini anlamaktır. Anket sistemi ile yapılan çalışmada öğrenci kabul edildikten sonra fakülte, yaş, cinsiyet, durum ve diğer ilgili değişkenlere odaklanan öğrencinin kabul stratejisine göre hazırlanmış anket soruları sonuçları SPSS programı kullanarak analizler yapılmıştır.

Kuzey Irak'ta uygulanan yeni eğitim sisteminin öğrenci eğitim seviyesi üzerindeki etkisini analiz etmek için Ki-Kare ve Lojistik Regresyon yöntemleri kullanılmıştır. Uygulama anket yöntemi ile Soran Üniversitesinde 5 fakültede yapılmış ve toplamda 204 öğrenci katılım göstermiştir. Yapılan analizler sonucunda yeni eğitim sisteminin öğrenci eğitim düzeyleri üzerinde anlamlı sonuçlar verdiği gözlemlenmiştir.

Anahtar kelimeler: Bologna Süreci, Ki-Kare, Lojistik Regresyon.

1. GİRİŞ

Bologna Süreci, yükseköğrenim niteliklerinin standartları ve kalitesinde karşılaştırılabilirliği sağlamak için Avrupa ülkeleri arasında yapılan bir dizi bakanlık toplantıları ve anlaşmalarıdır. Süreç, Lizbon Tanıma Sözleşmesi kapsamında Avrupa Yüksek Öğretim Alanını yaratmıştır. Bologna deklarasyonunun 1999 yılında 29 Avrupa ülkesinden eğitim bakanları tarafından imzalandığı Bologna Üniversitesi'nin adını almıştır. Avrupa Konseyi'nin Avrupa Kültür Konvansiyonu'nda süreç diğer ülkelere açılmış ve hükümet toplantıları düzenlenmiştir. Prag (2001), Berlin (2003), Bergen (2005), Londra (2007), Leuven (2009), Budapeşte-Viyana (2010), Bükreş (2012), Erivan (2015) ve Paris (2018) bu ülkelerden bazılarıdır (Wikipedia, 2021.

Bologna deklarasyonunun imzalanmasından önce, Magna Charta Universitatum, 1988 yılında Bologna Üniversitesi'nin (ve Avrupa üniversitelerinin) 900. yıldönümünü kutlayan bir üniversite rektörleri toplantısında yayınlandı. Deklarasyondan bir yıl önce, eğitim bakanları Claude Allegre (Fransa) , Jürgen Rüttgers (Almanya), Luigi Berlinguer (İtalya) ve Baroness Blackstone (İngiltere), 1998'de Paris'te Sorbonne deklarasyonunu imzalayarak kendilerini "Avrupa Yüksek Öğretim sisteminin mimarisini uyumlu hale getirmeye" adadılar. Bologna Süreci 48 katılımcı ülkeye sahiptir. (Wikipedia, 2021)

Tez, Bologna Süreci'nin kökenine, önemine ve Kuzey Irak'taki Yüksek Öğrenimin gelişimi üzerindeki etkisini incelemek için yapılmıştır. Bologna Süreci gelişimi ve Kuzey Irak'taki Yüksek Öğrenim sisteminin analizi, eş zamanlı bakış açısıyla gerçekleştirilir. Kuzey Irak'taki Yüksek Öğrenim sisteminin durumu sürekli bir tartışma konusu olmuştur. Asıl amacı bir Avrupa Yüksek Öğretim Alanı oluşturmak olan Bologna Süreci nedeniyle, bugünkü Kuzey Irak Yüksek Öğrenim sistemi eğitimi tatmin etmeyi amaçlamaktadır. Bireylerin gereksinimleri, ulusal bilimin uluslararası düzeye erişimi, Kuzey Irak milletinin entelektüel ve manevi potansiyelinin yenilenmesi ve mesleki eğitimi uluslararası standartlara uygun yetkin bir uzmanın oluşumu ve geliştirilmesi sırasında Kuzey Irak katılımcı ülkelerden biri olmuştur. Kuzey Irak Bologna sürecinde 2019'dan beri yer almaktadır. Şu anda, mevcut Yüksek Öğretim sisteminde birçok değişiklik yapıldı ve çok daha fazlası bekleniyor. Bologna Süreci, 29

Avrupa ülkesinden bakanların Bologna'da resmi olarak önemli bir anlaşma imzalamak üzere Bolonya'da bir araya geldiği 19 Haziran 1999'da açılan Yüksek Öğrenim niteliklerinin standartları ve kalitesinde karşılaştırılabilirliği sağlamayı amaçlayan bir süreçtir. Bologna Sürecinin temel amacı, bir Avrupa Yüksek Öğretim Alanı oluşturmak ve uluslararası rekabet gücünü artırmak için dünya çapında Avrupa Yüksek Öğretim sistemini teşvik etmektir. Avrupa üniversite sistemlerinin karşılaştırılabilirliğini sağlamak için Bologna Deklarasyonu, ilerlemesi 1999 ve 2018 yılları arasında düzenlenen bir dizi Bakanlar Konferansı aracılığıyla izlenen ve yönetilen bir dizi ana hedef belirlemiştir.

2. KAYNAK BİLDİRİŞLERİ

Kahraman ve diğ. (2012), Bologna Sürecinde Öğrenci Katılımı: Türkiye'den Bir Örnek Olay adlı çalışmalarında, öğrencilerin Türkiye Yükseköğretim Yeterlilikler Çerçevesi ile çerçevelenen yeni program çıktılarına ilişkin algılarını araştırmak ve uygulanacak Bolonya Süreci için bir dizi kılavuz sağlamayı amaçlamışlardır. Mühendislik ve Mimarlık Fakültesi öğrencileriyle, açık uçlu sorular içeren yarı yapılandırılmış bir anketten yararlanılara çalışma gerçekleştirilmiştir. Sonuçlar, INAR kurslarının hem teorik hem de pratik içerikleri öğrencilerin mesleğin iletişimsel, işbirlikçi ve disiplinlerarası yönlerini edinme ve kullanma ihtiyacını ve onların beklentilerini de ortaya koyuyor.

Joakim ve diğ. (2010), lisans hemşirelik programlarında Bologna sürecinin etkisi: İsveç örneği adlı çalışmalarında, Bologna sürecinin ilk uygulamasının ardından İsveç'teki lisans düzeyinde hemşirelik programlarında, ana konunun özelliklerini ve tıp bilimleri ve sosyal bilimler gibi diğer konu alanlarıyla ilişkisini analiz etmiştir, Özel çalışma soruları ile belirli göstergelerde işleyişi eleştirilmiş, 26 İsveç üniversitesi ve üniversite kolejindeki 27 lisans programının 2008 hemşirelik müfredatı ve müfredatını analiz etmek için yapılandırıcı bir yaklaşım ve açıklayıcı içerik analizi kullanılmıştır. Sonuçlar, ana konu için kullanılan terim ve kavramlarda farklılıklar ortaya çıkarmıştır.

Monika Govekar-Okoliš (2018), Mentorların Bologna sürecinin benimsenmesinden sonra şirketlerdeki yükseköğretim öğrencileriyle mentorluk yapmalarının etkilerine ilişkin algıları adlı çalışmalarında, bazı Avrupa ülkelerindeki şirketlerde öğrencilerle çalışan mentorların Bologna Süreci'nin benimsenmesinden sonra mentorluk hakkında ne düşündüklerini belirlemektir. Örnek olarak Slovenya'dan (52), Hırvatistan'dan (3) çeşitli firmalardan 57 katılımcı mentordan oluşmaktadır. 36 kadın ve 21 erkek mentor çalışmada yer alırken ortalama yaş 42, ortalama kıdem 17.2 yıl olarak ele alınmıştır. Bu çalışmanın bulguları Bologna Sürecinin mentorluğu ve resmi organizasyonunu nasıl değiştirdiğine dair yeni anlayışlar getiriyor, mentorluğun etkileri hem olumlu hem de olumsuz, bulgular elde edilmiştir.

3. MATERYAL VE YÖNTEM

Kuzey Irak'ta uygulanan yeni eğitim sisteminin öğrenci eğitim seviyesi üzerindeki etkisini analiz etmek için Ki-Kare ve Lojistik Regresyon yöntemleri kullanılmıştır. Uygulama anket yöntemi ile Soran Üniversitesinde 5 fakültede yapılmış ve toplamda 204 öğrenci katılım göstermiştir.

3.1. Ki-Kare Testi

Ki kare testi, iki kategorik değişken arasındaki ilişkiyi ölçen istatistiksel bir testtir. Kategorik değişkenler arasında pozitif anlamlı bir ilişki olup olmadığını ölçmek için Pearson Chisquare ile bir (m × n) olasılık tablosu kullanılmaktadır. Test, tek bir popülasyondan iki doğrudan değişkeniniz olduğunda bağlanır. İki değişken arasında anlamlı bir ilişki olup olmadığını belirlemek için kullanılır. Ki-Kare formülü aşağıda yer aldığı gibidir.

$$\chi^2 = \sum \left[\frac{(O - E)^2}{E} \right]$$

$$\mathrm{E} = \frac{C * r}{T}$$

Burada;

O: Gözlem sayısı

E: Beklenen değer

T: Toplam

r : Satır sayısı

C: Sütun sayısını göstermektedir.

3.2. Lojistik Regresyon

Lojistik regresyon, bir sonucu belirleyen bir veya daha fazla bağımsız değişken bulunan bir veri kümesini analiz etmek için kullanılan istatistiksel bir yöntemdir. Lojistik regresyonun amacı, iki yönlü karakteristiği (bağımlı değişken = yanıt veya

sonuç değişkeni) ile ilgili bir dizi bağımsız (öngörücü veya açıklayıcı) değişken arasındaki ilişkiyi tanımlamak için en uygun (henüz biyolojik olarak makul) modeli bulmaktır. Lojistik regresyon, ilgi karakteristiklerinin varlığının olasılığını logit dönüşümünü tahmin etmek için bir formülün katsayılarını (ve standart hatalarını ve önem seviyelerini) üretir. Lojistik regresyon için kullanılan denklemler aşağıda yer aldığı gibidir;

$$\pi(X) = \frac{e^{X}/1 + e^{\beta x}}{\frac{1}{1 + e^{\beta x}}} = e^{\beta x}$$

$$g(x) = \beta_0 + \beta_1 x$$

$$W = \frac{\hat{p}_1}{Se(\hat{p}_1)}$$

$$\text{odds} = \frac{\pi}{1-\pi}$$

4. BULGULAR

Kategorik değişkenler için, frekansları ve yüzdeleri göstermek için istatistiksel analiz kullanılmıştır. Kategorik değişkenler arasında bir korelasyon bulmak için Pearson Ki-kare kullanılmıştır. Ampirik sonuçlara göre, değişkenler (Öğrencilerin konuşma süresi, konuşma fırsatları, öğrenenlerin görüşlerine önem verme, değerlendirme yolları, ders kitabını sunma, fikir alışverişi, değerlendirme farklı yolları, yeterli zaman, dışarıda araştırma ve çalışma, ders hedefleri, mezuniyet sonrası iş bulma, Üniversite hizmetleri, sınıfın büyüklüğü, kafeterya kalitesi, temizlik, ulaşım araçları, okuma alanı, teknolojik araçlar, laboratuvar araçları, ders saati, konuları düzenleme, yetenekleri değiştirme, detaylı bilgilerin farkında olma ve farklı aktiviteler) ile eğitim seviyesi arasında önemli ilişkiler elde edilmiştir.

Şekil 4.1, 4.2, 4.3 ve 4.4 araştırmaya katılan öğrencilerin demografik bilgilerini göstermektedir. Grafikler incelendiğinde; katılımın en yüksek olduğu fakülte %22.10 ile Sanat Fakültesi'dir. En yüksek katılımcılar %54.90 oranı ile erkeklerdir. Katılımcıların %33,30 oranında 19 yaşında olduğu görülmektedir. Ayrıca %91.20 gibi büyük bir oran ile katılımcıların genellikle bekar olduğu rakamlarda görülmektedir. Katılımcıların sorulara verdikleri cevapların ortalamaları, standart sapmaları ve yüzdeleri Tablo 4.1, 4.2, 4.3 ve 4.4'te frekans tablolarında verilmiştir.

Demografik bilgilerin, akademik çevrenin, verilen hizmetin ve kullanılan program ve aktivitelerin eğitim seviyesi üzerindeki ilişkilerinin incelenmesi için Ki-Kare analizi kullanılmıştır. Ki-Kare analizine ait sonuçlar tablo 4.5, 4.6, 4.7 ve 4.8'de detaylı olarak verilmiştir. Demografik bilgiler hariç diğer değişkenler ile eğitim seviyesi arasında genel olarak anlamlı bir ilişkinin olduğu tablolarda detaylı olarak görülmektedir. Lojistik regresyon, bir sonucu belirleyen bir veya daha fazla bağımsız değişken bulunan bir veri kümesini analiz etmek için kullanılan istatistiksel bir yöntemdir. Tablo 4.12, 4.13 ve 4.14'te lojistik regresyon analizi ile eğitim seviyesi üzerinde anlamlı etkiye sahip olan değişkenler elde edilmiş sonuçlar tablolarda detaylı olarak verilmiştir.

5. SONUÇ

Bu tezin amacı, ikili lojistik regresyon kullanarak öğrenenlerin bilimsel düzeyinin yükselmesine etki eden en önemli faktörleri belirlemektir. Araştırmada, öncelikle katılımcıların sosyo-demografik özelliklerinin bir tanımlamasına ve bağımsız değişkenden alınan bilgiler ele alınmıştır. Veri koleksiyonlarını analiz etmeye yönelik araştırmalar, lojistik regresyon ve Ki-kare kullanmaya odaklanır. Daha sonra araştırma değişkenlerin öğrencilerin bilimsel düzeyini yükseltmedeki etkilerini açıklamayı hedeflemiştir. İstatistiksel analiz, kategorik değişkenler için frekansları ve yüzdeleri belirtmek için kullanılmıştır. Kategorik değişkenler arasındaki ilişkiyi bulmak için Pearson'un Ki-kare kullanılmıştır.

Kategorik değişkenler için, frekansları ve yüzdeleri göstermek için istatistiksel analiz kullanılmıştır. Kategorik değişkenler arasında bir korelasyon bulmak için Pearson Ki-kare kullanılmıştır. Ampirik sonuçlara göre, değişkenler (Öğrencilerin konuşma süresi, konuşma fırsatları, öğrenenlerin görüşlerine önem verme, değerlendirme yolları, ders kitabını sunma, fikir alışverişi, değerlendirme farklı yolları, yeterli zaman, dışarıda araştırma ve çalışma, ders hedefleri, mezuniyet sonrası iş bulma, üniversite hizmetleri, sınıfın büyüklüğü, kafeterya kalitesi, temizlik, ulaşım araçları, okuma alanı, teknolojik araçlar, laboratuvar araçları, ders saati, konuları düzenleme, yetenekleri değiştirme, detaylı bilgilerin farkında olma ve farklı aktiviteler) ile eğitim seviyesi arasında önemli ilişkiler elde edilmiştir.

Demografik bilgilerin, akademik çevrenin, verilen hizmetin ve kullanılan program ve aktivitelerin eğitim seviyesi üzerindeki ilişkilerinin incelenmesi için Ki-Kare analizi kullanılmıştır. Ki-Kare analizine ait sonuçlar tablo 4.5, 4.6, 4.7 ve 4.8'de detaylı olarak verilmiştir. Demografik bilgiler hariç diğer değişkenler ile eğitim seviyesi arasında genel olarak anlamlı bir ilişkinin olduğu tablolarda detaylı olarak görülmektedir. Lojistik regresyon, bir sonucu belirleyen bir veya daha fazla bağımsız değişken bulunan bir veri kümesini analiz etmek için kullanılan istatistiksel bir yöntemdir. Tablo 4.12, 4.13 ve 4.14'te lojistik regresyon analizi ile eğitim seviyesi

üzerinde anlamlı etkiye sahip olan değişkenler elde edilmiş sonuçlar tablolarda detaylı olarak verilmiştir.

"Öğrencilerin Bilimsel Düzeyini Geliştirme Konusunda Bologna Sürecinin Etkisi: Soran Üniversitesi'nin Bir Örneği" isimli tez çalışmamızda Kuzey Irak'ta yürütülen yeni eğitim sisteminin eğitim seviyesi üzerinde anlamlı bir etki yarattığı ve öğrencilerin bu süreçten memnun oldukları gözlemlenmiştir. Eğitim sisteminin eksikliklere sahip olduğu ve bu eksikliklerin düzeltilmesi daha kaliteli sonuçlar doğuracağı kanaatindeyiz. Eğitimin ülke kalkınması için önemli bir faktör olduğu ve yapılacak en büyük yatırımın eğitim alanında olması daha güçlü ekonomiler oluşturacaktır.

APPENDIX

QUESTIONNAIRE FORM

Yüzüncü Yıl University
Faculty of Science
Statistics department

Questionnaire

Introduction:

Dear learner, this form consists of some sections and questions which is a part of student Hazhar Kareem Mahmood's Master thesis at Yuzuncuyil University in Turkey which entitled; (**the influence of Bologna Process on promoting learners' scientific level**), your accurate responses will serve the thesis.

Thank you…

First section / General information

Faculty:

Department:

Gender:

Male: Female:

Status:

Married: Single:

Age:

Second section

Environment, support and Academic principles

No	Item	Strongly disagree	disagree	Somehow	agree	Strongly agree
1	The department provides different facilities for learners such as; (activities, tourism, teaching aids, etc.)					
2	Learners' talking time is more than teachers' talking time.					
3	Talking opportunities are given to learners.					
4	The teacher pays attention to learners' opinion.					
5	I am aware of the ways of assessments.					
6	In the beginning of the course, the teacher presented the course book and plans of the lecture in detail.					
7	The teacher exchanges ideas and opinions about topics and ways of assessments.					
8	I feel I have opportunities to show my diverse skills.					
9	The teacher uses different ways of assessment, a part of written exam (seminar, report, book review, poster, project, oral exam, interview, field work, etc.)					
10	I have enough time and period outside of classroom to complete my assignments					
11	The teacher pays attention to learners' learning outside of class and motivates them to search and study outside of class.					
12	The ways of assessment are matched with objectives of the lectures.					
13	I feel I have required skills to find job after graduation because of the skills that I got in university.					

Third section

Environment and academic support and principles

No	Item	Strongly disagree	disagree	Somehow	agree	Strongly Agree
1	University services are regarded well (internet, library, etc.).					

2	The size of the classrooms is suitable with the learners' number.					
3	The quality of café and kitchen is good.					
4	Buildings are clean.					
5	Transportation tools (bus) are available.					
6	The university has provided suitable reading space.					

Forth Section

Learning programs and activities

No	Item	Strongly disagree	disagree	Somehow	agree	Strongly Agree
1	Technological tools such as (computers, data show, smart board, etc. have good impact of the process.					
2	Laboratory tools and management of courses are in a good level.					
3	Teachers sufficiently use the class time.					
4	Teachers follow their course books to complete their topics.					
5	Topics are organized according to plans.					
6	I feel the change in my ability according to the beginning of the course.					
7	I am aware of detailed information that is related to learners.					
8	The teacher uses different activities during the class.					
9	Do you feel bored in class?					

T.C
VAN YÜZÜNCÜ YIL ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
LİSANSÜSTÜ TEZ ORİJİNALLİK RAPORU

Tarih: 28/06/2021

Tez Başlığı / Konusu: The Influence of Bologna Process on Promoting Learners' Scientific Level: A Sample of Soran University

Yukarıda başlığı/konusu belirlenen tez çalışmamın Kapak sayfası, Giriş, Ana bölümler ve Sonuç bölümlerinden oluşan toplam 73 sayfalık kısmına ilişkin, 28/06/2021 tarihinde şahsım/tez danışmanım tarafından turnitin intihal tespit programından aşağıda belirtilen filtreleme uygulanarak alınmış olan orijinallik raporuna göre, tezimin benzerlik oranı % 13 (onüç) dır.

Uygulanan filtreler aşağıda verilmiştir:

- Kabul ve onay sayfası hariç,
- Teşekkür hariç,
- İçindekiler hariç,
- Simge ve kısaltmalar hariç,
- Gereç ve yöntemler hariç,
- Kaynakça hariç,
- Alıntılar hariç,
- Tezden çıkan yayınlar hariç,
- 7 kelimeden daha az örtüşme içeren metin kısımları hariç (Limit inatch size to 7 words)

Van Yüzüncü Yıl Üniversitesi Lisansüstü Tez Orijinallik Raporu Alınması ve Kullanılmasına İlişkin Yönergeyi inceledim ve bu yönergede belirtilen azami benzerlik oranlarına göre tez çalışmamın herhangi bir intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.

Gereğini bilgilerinize arz ederim.

28/06/2021

Adı Soyadı: Hazhar Kareem MAHMOOD

Öğrenci No: 18910001396

Anabilim Dalı:İstatistik

Programı:Tezli Yüksek Lisans

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Dr. Öğr. Üyesi Şakir İŞLEYEN

ENSTİTÜ ONAYI
UYGUNDUR