

# Using SPSS Program to Analyze Students' Opinions About The Bologna Process Helping to Complete Their Teaching Activities Faster Than the Traditional Method

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## ABSTRACT

The current research aims to study if the Bologna process helps to complete the teaching activities faster than the traditional method according to the opinion of students of the Technical College at Imam Ja'farAlsadiq University (Ijsu) - Baghdad - Iraq, the research sample consisted of (109) male and female students from the Department of Communications Technology Engineering, and a questionnaire was prepared for that consisted of one question, and the indicators of their validity and stability were verified, then the data were processed statistically using the statistical SPSS computer program, and the results indicated that the application of the Bologna process helps the students to complete their teaching activities faster than the traditional method.

**KEYWORDS-** Bologna process, Imam Ja'farAlsadiq University, Technical Colledge, SPSS

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## I. INTRODUCTION

### 1.1 The nature of the problem

What are the point views of the first-stage students of the Department of Communications Technology Engineering at the Technical College at Imam Ja'farAlsadiq University (pbuh) on the the Bologna Process help to complete the teaching activities faster than the traditional method?

### 1.2 Previous work

There are more a lot of previous works about the students' views on Bologna Process, some of them are :

1. Abdaljalil M. Hamad<sup>[1]</sup>, studied if the Bologna process is useful in education according to the opinions of students of the Technical College at Imam Ja'farAlsadiq University (Ijsu) - Baghdad - Iraq, then the data were processed statistically using the statistical SPSS computer program, and the results indicated that the application of the Bologna process is useful in education for students.

2. Christian Bob Nicol, & et al<sup>[2]</sup>, reviewed postsecondary school students' experiences in the science laboratories. This review has implied that students should not be left out in science laboratory learning reform efforts and their views about what obtains in the science laboratories should be routinely monitored to inform such reforms.

3. Amelia Veiga & Alberto Amaral<sup>[3]</sup>, argue that the use of the Open Method of Coordination (OMC) in the implementation of the Bologna process presents coordination problems that do not allow for the full coherence of the results.

4. Crosier, David & Parveva, Teodora<sup>[4]</sup>, explain that today, the Bologna Process stands out as a highly significant reform that has triggered a chain of national-level reforms in higher education. Its effects are not confined to European countries or the signatory countries, as the move towards harmonization is being attempted in several countries outside the orbit of the Bologna Process.

5. Aram Muhammad-Amin Qadir<sup>[5]</sup>, studied a preliminary attempt to identify the impacts of the reform on (I) financial procedure for the Morning Studies, (II) financial procedure for the Evening Studies (III) the institute wages and salary premium.

6. Salhaddin Yasin Baper<sup>[6]</sup>, specified that the factors (course factors, social factors, and individual factors) have an equivalent consequence on course selection and positively affect the student's academic performance, on the other hand, the Bologna process is one of the effective factors in improving Kurdistan's higher education as a comprehensive accreditation system.

7. Mzhda Sedeeq Hamad Ameen & Azah Kamiran Ahmed<sup>[7]</sup>, attempt to identify the challenges that voices raised towards the Bologna Process by students of Soran University-Kurdistan as it entices each institution to

become more effective as a result of more systematic formal external evaluation, but also more informal pressure by more mobile students.

8. Solomon GebreyohansGebru, Jef C. Verhoeven and Kurt De Wit<sup>[8]</sup>, analyse the relevant literature available on Google

Scholar and Web of Science from a perspective of policy borrowing or appropriation. The analysis shows that all the

authors report the transition to the formal LMD structure, but that not all expectations of this process have been realised.

Further research is suggested.

9. Zhaidarkul Belassarova<sup>1</sup>, @ et al<sup>[9]</sup>, have come to conclusion that the state should develop system of measures in order to save accumulated experience of philologists teaching organisation, the state should find the balance between theory and practice when teaching the student, as well as to invent a system for improvement of professional skill throughout the whole period of working activity, to create centers and national registers of philologists specification.

10. K. Aida-Zade, R. Ismibayli, S. Rzayeva<sup>[10]</sup>, describe a model for class schedules at a university under the conditions of a credit education system. An approach is proposed that covers the entire process, including en-rollment and registration of students in the disciplines they are interested in, and the development of class schedules for both teachers and students.

11. Andrijana Maksimovic, MinelaĐerlek, & Novi Pazar<sup>[11]</sup>, found that the main lesson from the analysis of the relationship between the integrated university and the regionalization process is that an integrated university is a need of society, and especially the need of those areas that exude diversity

### 1.3 Purpose and the contribution

The researcher in the current research aims to identify the consideration of students of the first stage in the Department of Communication Technology Engineering about the Bologna Process Helping to Complete Their Teaching Activities Faster Than the Traditional Method in university education, as the first experience in Iraq, and this research will contribute to promoting the use of this process or not in the future.

## II. THEORITICAL PART

### 2.1 Bologna Path

Imam Ja`farAlsadiq University (IJSU) is a public university in Iraq that has started implementing the Bologna Process in 2023. On June 19, 1999, educational ministers from 29 different European nations signed an agreement in the Italian city of Bologna that would become known as the Bologna process.<sup>[10]</sup> The process seeks to promote a higher education system in Europe that is both internationally competitive and globally appealing.

### 2.2 Methodology

In this study, a questionnaire was used. It had only one question, it was "The Bologna process helps me complete my teaching activities faster than the traditional method!". This question was taken from some questionnaires ordinary used to test the activities of any university education process.

### 2.3. Participants of the Study

109 student of both genders (male and female) in communications technical engineering department of technical college in Imam Ja`farAlsadiquniversity involved in the study during the academic year 2023- 2024. All the participants were engaged in Bologna process; and consented to respond the question in the study.

### 2.4 Data Collection and Data Analysis

A survey was used to gather the necessary information. Data were examined using a 5-point Likert scale (I do n't agree at all, I do n't agree, unaligned, I agree, I completely agree) that was derived from the researcher-created scale.

### 2.5 SPSS computer Program

The IBM® SPSS® software platform offers advanced statistical analysis, a vast library of machine learning algorithms, text analysis, open-source extensibility, integration with big data and seamless deployment into applications. Its ease of use, flexibility and scalability make SPSS accessible to users of all skill levels. What's more, it's suitable for projects of all sizes and levels of complexity, and can help you find new opportunities, improve efficiency and minimize risk<sup>[11]</sup>

### III. PRACTICAL PART

A questionnaire was prepared in the previously mentioned way, and it was distributed to the students of the first stage in the Department of Communications Technology Engineering, and after filling it out by them, it was entered into the SPSS program for statistical analysis, according to the following steps:

1. The SPSS computer program is executed.
2. Press File, then New, then Data, then Save, and the results file is named result.pdf
3. Select Variable view and the required information is filled in the name field. Let the name is "Q".
4. In the label list, the question is written.
5. From the value menu, click on value labels and write the 1<sup>st</sup> option (1. I do not agree at all). Then click add.
6. Then click on Repeat the process for the rest of the choices (2. I do not agree), (3.unaligned), (4. I agree) and (5. I completely agree). Then click OK.
7. Click Variable view , and write the selection number of all participants (109).
8. Click on the question, select the question, click on the arrow to transfer the question to the other side, click statistics.
9. Point the options, then continue
10. Click charts , then point the histograms, then show normal curve on histograms, then continue
11. Choose analyze, then descriptive statistics, then explore
12. Choose number, then click on the arrow to transfer the number to the dependent list, then choose the question, then click the 2<sup>nd</sup> arrow to transfer the question to the factor list, then click statistics, the explore interface will occur.
13. Point all options, then continue
14. Return to explore list, choose plots, another interface will occur , select some options, then continue, then OK.
15. All results will occur.

### IV. RESULTS

Explore

**The Bologna Process helps me complete my teaching activities faster than the traditional method**

**Table (4-1)**

**Case Processing Summary**

The Bologna Process helps me complete my teaching activities faster than the traditional method		Cases				
		Valid		Missing		Total
		N	Percent	N	Percent	N
Number	I do n` t agree at all	2	100.0%	0	0.0%	2
	I do n` t agree	2	100.0%	0	0.0%	2
	Unaligned	17	100.0%	0	0.0%	17
	I agree	20	100.0%	0	0.0%	20
	I completely agree	88	100.0%	0	0.0%	88

**Table (4-2)**  
**Descriptives**

number	I do n't agree at all	Mean	i	Statistic Std, Error	
				Lower Bound	Upper Bound
		95% Confidence Interval for Mean	m		
		5% Trimmed Mean	u		
		Median	m		
		Variance			
		Std. Deviation			
		Minimum			
		Maximum			
		Range			
		Interquartile Range			
		Skewness			
		Kurtosis			
	I do n't agree	Mean		Lower Bound	Upper Bound
		95% Confidence Interval for Mean	for		
		5% Trimmed Mean			
		Median			
		Variance			
		Std. Deviation			
		Minimum			
		Maximum			
		Range			
		Interquartile Range			
	unaligned	Skewness			
		Kurtosis		Lower Bound	Upper Bound
		Mean			
		95% Confidence Interval for Mean			
		5% Trimmed Mean			
		Median			
		Variance			
		Std. Deviation			
		Minimum			
		Maximum			

23.5000	.63.500	
0.50000	0	
1	-349.4517	32.50000
7	476.45	
.	17	
1	.63.500	
4	.63.500	
6	0	
9	0	
2	2112.5	
9	00	
.	45.961	
8	94	
5	31.00	
3	96.00	
1	65.00	
.		
2		
3		
.	.62.588	
5	2	
0	49.0471	
0	76.1294	6.38764
0	63.9314	
.	68.0000	
5	693.632	
0	26.336	
0	90	
.	2.00	
7	99.00	
0		
7		
1		
1		
2		
3		
.		
0		
0		
2		
4		
.		
0		
0		
1		
.		
0		
0		

The Bologna Process helps me complete my teaching activities faster than the traditional method		Statistic	Std. Error	
I agree	Range	97.00		
	Interquartile Range	39.00		
	Skewness	-.722	0.550	
	Kurtosis	.225	1.083	
	Mean	68.20007	4.1819	
	95% Confidence Interval for Mean	Lower Bound	52.6738	
		Upper Bound	83.7264	
	5% Trimmed Mean	69.3889		
	Variance	66.5000		
	Std. Deviation	1100.589		
	Minimum	33.17513		
	Maximum	7.00	0.512	
	Range	108.00	0.992	
	Interquartile Range	101.00	59.75378754	
I completely agree	Skewness	-.274		
	Kurtosis	-1.358		
	Mean	49.8676		
	95% Confidence Interval for Mean	Lower Bound	42.3077	
		Upper Bound	57.4278	
	5% Trimmed Mean	49.3562		
	Median	47.5000		
	Variance	975.490		
	Std. Deviation	31.23263		
	Minimum	1.00		
	Maximum	109.00		
	Range	108.00		
	Interquartile Range	57.25		
	Skewness	.120	0.291	
Kurtosis	-1.210	0.574		

**Table 4-3**  
**M-Estimators**

The Bologna track helps me complete my teaching activities faster than the traditional method		Huber's M-Estimator <sup>a</sup>	Tukey's Biweight <sup>b</sup>	Hampel's M-Estimator <sup>c</sup>	Andrews' Wave <sup>d</sup>
number	I do n't agree at all	23.5000	23.5000	23.5000	23.5000
	I do n't agree	63.5000	63.5000	63.5000	63.5000
	unaligned	65.6856	66.3992	65.1366	66.4156
	I agree	69.6081	69.0893	68.5537	69.0878
	I completely agree	49.0478	49.3501	49.3868	49.3527

- a. The weighting constant is 1.339.
- b. The weighting constant is 4.685.
- c. The weighting constants are 1.700, 3.400, and 8.500.
- d. The weighting constant is  $1.340 \cdot \pi$ .

**Table 4-4**  
**Percentiles**

The Bologna track helps me complete my teaching activities faster than the traditional method			Percentiles		
			5	10	25
Weighted Average (Definition 1)	number	do not agree at all	23.0000	23.0000	23.0000
		do not agree	31.0000	31.0000	31.0000
		unaligned	2.0000	22.8000	46.5000
		agree	7.5500	19.2000	41.7500
		completely agree	4.4500	8.9000	20.2500
Tukey's Hinges	number	do not agree at all			23.0000
		do not agree			31.0000
		unaligned			50.0000
		agree			42.5000
		completely agree			20.5000

**Percentiles**

The Bologna track helps me complete my teaching activities faster than the traditional method			Percentiles		
			50	75	90
Weighted Average (Definition 1)	number	do not agree at all	23.5000	.	.
		do not agree	63.5000	.	.
		unaligned	68.0000	85.5000	95.0000
		agree	66.5000	101.5000	105.8000
		completely agree	47.5000	77.5000	92.1000
Tukey's Hinges	number	do not agree at all	23.5000	24.0000	
		do not agree	63.5000	96.0000	
		unaligned	68.0000	83.0000	
		agree	66.5000	101.0000	
		completely agree	47.5000	77.0000	

**a. Percentiles**

The Bologna track helps me complete my teaching activities faster than the traditional method			Percentiles
			95
Weighted Average (Definition 1)	number	do not agree at all	.
		do not agree	.
		unaligned	.
		agree	107.9000
		completely agree	102.6500
Tukey's Hinges	number	do not agree at all	
		do not agree	
		unaligned	
		agree	
		completely agree	

Table 4-5

Extreme Values<sup>a</sup>

The Bologna track helps me complete my teaching activities faster than the traditional method			Case Number	
number	I do n't agree at all	Highest	1	24
		Lowest	1	23
	I do n't agree	Highest	1	96
		Lowest	1	31
unaligned	Highest	1	99	
		2	94	
		3	91	
		4	88	
		5	83	
	Lowest	1	2	
		2	29	
		3	20	
		4	43	
		5	50	
I agree	Highest	1	108	
		2	106	
		3	104	
		4	103	
		5	102	
	Lowest	1	7	
		2	18	
		3	30	
		4	34	
		5	41	
I completely agree	Highest	1	108	
		2	107	
		3	105	
		4	101	
		5	95	
	Lowest	1	1	
		2	3	
		3	4	
		4	5	
		5	6	



**Extreme Values<sup>a</sup>**

The Bologna track helps me complete my teaching activities faster than the traditional method			Value	
number	I do n't agree at all	Highest	1	24.00
		Lowest	1	23.00
	I do n't agree	Highest	1	96.00
		Lowest	1	31.00
unaligned	Highest		1	99.00
			2	94.00
			3	91.00
			4	88.00
			5	83.00
	Lowest		1	2.00
			2	28.00
			3	28.00
			4	43.00
			5	50.00
I agree	Highest		1	108.00
			2	106.00
			3	104.00
			4	103.00
			5	102.00
	Lowest		1	7.00
			2	18.00
			3	30.00
			4	34.00
			5	41.00
I completely agree	Highest		1	109.00
			2	107.00
			3	104.00
			4	101.00
			5	95.00
	Lowest		1	1.00
			2	3.00
			3	4.00
			4	5.00
			5	6.00

numberHist  
ograms

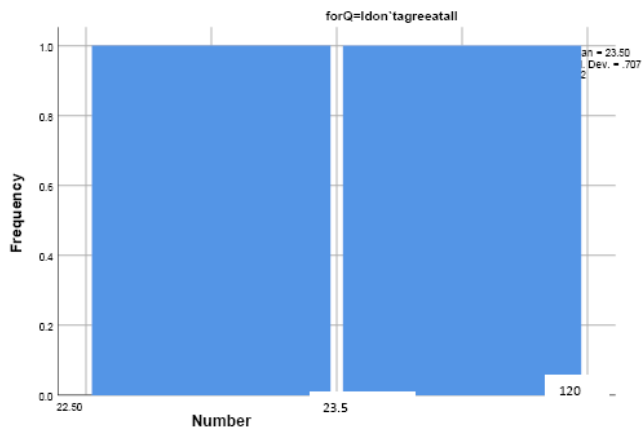


Figure (4-1)  
For Q.=I do n't agree at all

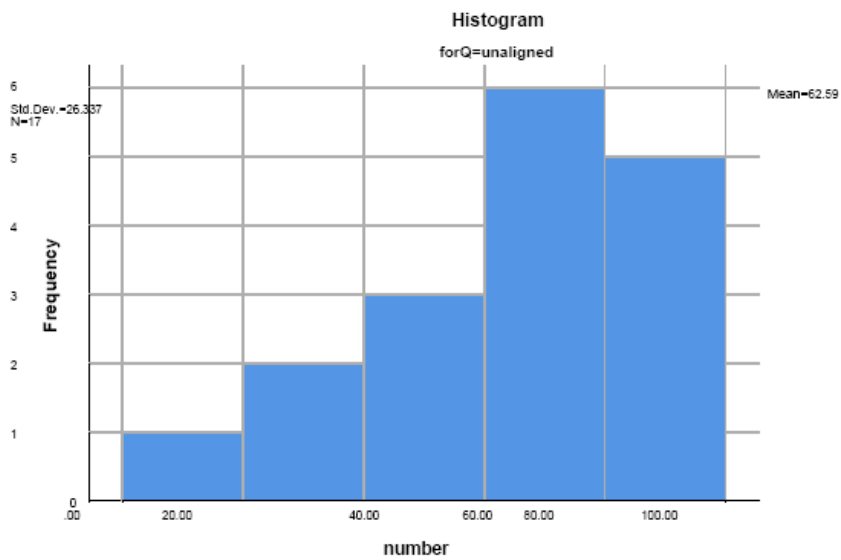


Figure (4-2)  
For Q.= unaligned

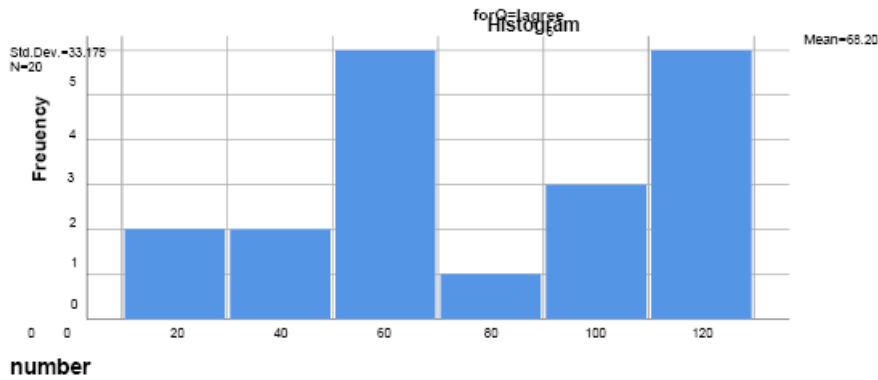


Figure (4-3)  
For Q1= I agree

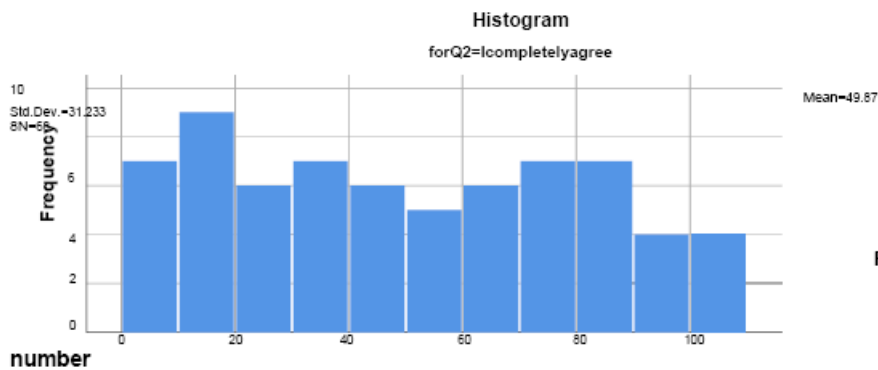


Figure (4-4)  
For Q2= I completely agree

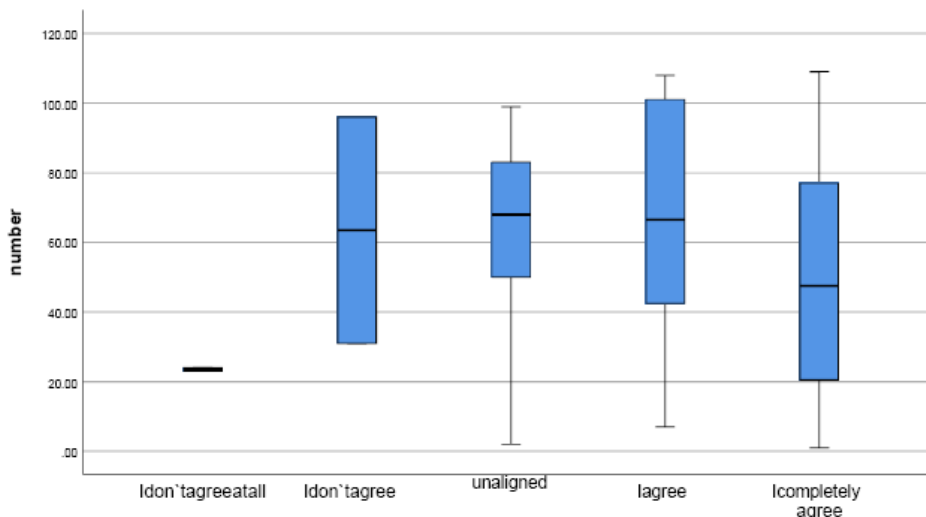


Figure (4-5)  
Box Plots

## V. CONCLUSION

Table (4-1) shows that most of students who are completely agree that the Bologna Process help them complete their teaching activities faster than the traditional method, more than (60%), which is very high.

Table (4-3) shows that the completely agree choice got the lowest mean statistics value with a score of 49.87 and the lowest score of standard error of 3.78.

In the M-estimator field, the completely agree selection received a low values (49) on all scales (Huber's, Tukey's, Hampel's, Andrews wave).

In the same way, the remaining tables and curves confirm that the choice of completely agree with Bologna Process helps students complete their teaching activities faster than the traditional method, and it is the preferred choice of most first-year students in the Department of Communications Technology Engineering at the Technical College at Imam Ja'far Al-Sadiq University.

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