

Evaluating the State of Affairs of the "Biological" and "Applied" System in the Preparatory School Study from the Students' Perspective

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Abstract: The current research aims to: i) evaluate the practicality of the scientific system in the preparatory schools, based on two models: biological and applied branches; ii) to identify the general judgment on this system and iii) to reveal aspects of weakness and strength of each branch. The original research sample consisted of (400) male and female students of governmental secondary school (preparatory cycle) (Morning study) for boys and girls under the General Directorate of Education in Basra Governorate for the academic year (2019-2020). An exploratory questionnaire was used as a research tool where a set of questions about the "biological" and "applied" system were presented to the students and whether they are with or against this educational system stating the reasons for their choice. After collecting and sorting the information and data, a questionnaire was prepared consisting, in its initial form, of (35) paragraphs, and in accordance with the Likert scale of three alternatives consisting of (yes, to some extent, no). It was presented to a group of arbitrators to determine whether the paragraphs are valid or not and to amend or correct some of them or add other paragraphs. The experts agreed on all the paragraphs while reformulating some of the paragraphs and thus the validity of the tool was confirmed. Then, the statistical validity was found (discriminatory) and paragraph No. (31) was ruled out and thus the questionnaire consisted of (34) items only. The reliability was found by the two half-segmentation methods and the Alpha Cronbach method. The reliability coefficient of the student sample by the half-segmentation method reached (0.58). After applying the Gutman equation, this became (0.70). The reliability coefficient of the student sample by the Alpha Cronbach method was (0.67). The scale was applied in its final form to a sample of (400) male and female students. According to the variables of sex and specialization (biological & applied), the following statistical methods were used to achieve the research objectives: T-test for one sample to find out the level of satisfaction or rejection of the research sample as well as T-test for two samples of equal number in comparison between the two groups (27%) high and (27%) low for the purpose of distinguishing the paragraphs. Also calculated is the percentage weight and this is to identify strengths and weaknesses in each paragraph of the scale from the students' point of view. In light of the research objectives, the results showed little satisfaction among students of the preparatory stage (the scientific branch) about the diverse system of their branch of study (biological and applied). It appeared that paragraph (25) in the scale (i.e high rates in the biological branch with a lack of non-medical specializations that do not provide an opportunity for admission to universities) ranked first with a weighted mean (2.775) and a weight percentage of (5.92%). In light of these results, we presented a number of recommendations, the most important of which are: canceling the new system and returning to the (scientific and literary) system. We also put forward some proposals, the most important of which is: an analytical study of the results of the ministerial (governmental or central) examinations for the biological and applied branches.

Keywords: The biological system, the applied system, the preparatory study.

1. Introduction

1.1 Research Problem

On (9/24/2015), the Ministry of Education in Iraq adopted a new system of study that divides the academic subjects in the scientific stream into two branches (biological and applied) instead of the old system (literary - scientific). The purpose of this is to diversify secondary education. Thus, students can choose the branch that fits with their ambition and helps them achieve their goals in the sixth grade of preparatory school. In view of the different opinions among educators, researchers in educational affairs, teachers, and even the students themselves, there has been a discussion between them that many students cannot measure their scientific potential clearly and accurately and choose their specialization randomly and quickly or down to the desire of their friends or parents. However, when they enter the study, they fail in their study due to the difficulty of scientific subjects of the medical and pharmacy colleges and other related fields, which they urge to pursue as being more lucrative financially and socially. The problem is that there is an opinion that this system caused a clear confusion in the educational process and created problems in the central admission and exacerbated problems in the infrastructure that suffers from a clear shortage. In addition, there are other issues such as financial burdens that affected the Ministry of Education to accommodate print books, the double efforts of students, the proximity of the applied system to the literary, the overlapping of materials between the practical and the biological branches, and the lack of trained cadres of teachers who fit this system. This caused an outcry at implementing this system and a demand for its abolition, especially it was not tested in some directorates and schools before its application.

1.2 Importance of Research:

This can be shown as follows:

- 1- highlighting the importance of the diversified education system (biological & applied) in the high-school stages in determining the future of students.
- 2- highlighting the importance of satisfaction of both the beneficiary and implementer of quality events in the educational process.
- 3- ending the current controversy and giving accurate results to officials with the continuation or termination of this system and a return to the previous system.
- 4- conducting an evaluation of the educational system as it is a process of diagnosis and prevention that aims to development, and improvement, and satisfaction, and justice.
- 5- being the first study on evaluating the diversified system (biological and applied) from the point of view of students in the high-school stage.

1.3 Research aims and objectives

The current research aims to:

- 1- determining the general judgment of the members of the research sample from the students of the scientific branch (Biological and Applied) about the educational system.
- 2- identifying the strengths (positives) and weaknesses (negatives) in each paragraph of the reality of the academic system (biological and applied) from the students' point of view.

1.4 Limitations of the current study

- 1- Spatial boundaries: the governmental preparatory schools (morning study) for boys and girls that are located within the center of Basra Governorate.
- 2- Human limits: a sample of students of both sexes in preparatory schools affiliated to the General Directorate of Education in Basra Governorate.
- 3- Objective limits: evaluating the state of affairs of the system (biological and applied) in the preparatory study from the students' point of view.
- 4- Time limits: the academic year 2019-2020.

1.5 Defining terms

1.5.1 Evaluation

Definition of Abu Al-Diyar (2012):

"It means giving the value of something, i.e. determining the extent to which the level of achievement has been reached, according to standards codified for that purpose. Evaluation is one of the assessment stages and is therefore different from it as it is more comprehensive, and leads to reaching appropriate judgments, while the evaluation may stand at giving value and price. (Abu Al-Diyar, 2012, p. 19).

1.5.2 Diversified Education (Biological and Applied):

1- The definition of the biological branch by the Ministry of Education (2016):

It is one of the branches of the fifth scientific grade, and its application began from the academic year 2015-2016 onwards. The outputs of the biological branch lead to the faculties of medicine, dentistry, pharmacy, veterinary medicine, the Faculty of Science (departments of Life Sciences and Biological Technologies) and the Faculty of Nursing and medical institutes. (Ministry of Education, 2016).

2- The definition of the applied branch by the Ministry of Education:

It is one of the branches of the fifth scientific grade. It commenced in the academic year 2015- 2016. Its outputs are the applied branch of engineering faculties, university departments of technology, science, agriculture, administration, economics, basic education, technical universities, technical and technological institutes, and institutes of management. (Ministry of Education, 2016, p. 1).

2. Theoretical Aspects

2.1 The biological and applied system in Iraq (diverse education):

The experience of applying the biological and applied system began since the 2015-2016 school year in secondary (preparatory cycle) schools. Since its inception, there has been a widespread controversy among teachers and parents that is still raging without solutions. The Ministry of Education decided to introduce this system in the

preparatory stage of the fifth preparatory grade (the scientific branch) as a way of diversification in which students can choose the branch they wish to continue studying freely, and without pressure.

As for the mechanisms of implementing the diversified education system (biological and applied), it requires two approaches: the first is that the theoretical and applied teaching be inside schools with the availability of logistical capabilities such as laboratories, modern equipment and workshops. The second approach is that teaching be theoretical in schools and the application in institutions that have those capabilities that students need, as is the case in medical colleges in Iraqi universities. In terms of the university admission system for graduates of the biological and applied branches, the Ministry of Education, through this system, requires the Ministry of Higher Education and Scientific Research, to accept the graduates of the biological branch in medical faculties such as general medicine, pharmacy, dentistry, veterinary medicine, nursing faculties and medical institutes. On the other hand, departments in colleges such as Engineering, the university of Technology, science, agriculture, management, economics, education, basic education, technical universities, technological and administrative institutes receive graduates of the applied branch. (Al-Jaafari, 2016, p. 3).

3. Methodology

3.1 The Research method.

We adopted the descriptive approach as it fits the subject of the research and is consistent with our study in which we seek to evaluate the reality of the system (applied and biological) from the preparatory school students' point of view.

3.2 The Research Community:

The current research community consists of secondary school (preparatory cycle) students for the academic year (2019-2020) in the city of Basra who are enrolled in the scientific branch. The number of community totalled 14939 male and female students, with a rate of (9557) for the fifth and sixth scientific grades of the applied branch, and (5382) students for the fifth and sixth scientific grades of the biology branch, distributed among (59) schools, including (30) schools for girls and (29) schools for boys. **Table 1 illustrates this.**

Table (1): The study population of preparatory stage students for the scientific branch, distributed by gender, for the academic year (2019-2020)

sex Specialisation	male	female	Total
	Biology	1800	3582
Applied	6792	2765	9557
Total	8592	6347	14939

3.3 The research sample:

The sample of the research was taken from a population of (797931) male and female preparatory school students from different sectors. We chose a total of (400) male and female students which formed 5%. With this percentage, it is possible to generalize the results of the sample to the community of preparatory schools affiliated to the Basra Governorate Directorate. They were distributed among (35) schools, (20) schools for girls and (15) for boys out of (59) as can be illustrated in Table 2.

Table (2): The research sample of preparatory school students distributed by school, gender, and academic branch

	School name	Boys			Girls			Total
		No branch mentioned	applied	biology	No branch mentioned	applied	biology	
1	Al-Abla Preparatory School for Girls	—	—	—	—	1	1	4

2	Andalusia for girls	—	—	—	—	—	2	2
3	Republic for girls	—	—	—	1	11	3	19
4	Zainab bint Ali (peace be upon him)	—	—	—	3	16	4	59
5	Zainabt for girls	—	—	—	1	12	5	17
6	Orouba for girls	—	—	—	—	1	6	3
7	Al-Ashar for girls	—	—	—	—	18	7	22
8	Creed for girls	—	—	—	1	11	8	23
9	The prosperous covenant for girls	—	—	—	—	4	9	8
10	Holy Karbala for girls	—	—	—	5	12	10	32
11	Almaali for girls	—	—	—	—	3	11	3
12	Miqat for girls	—	—	—	—	1	12	1
13	Al Wathba for girls	—	—	—	—	1	13	1
14	Warka for girls	—	—	—	—	10	14	19
15	Al Yamama for girls	—	—	—	—	8	15th	13
16	smile for girls	—	—	—	—	2	16	9
17	smile for girls	—	—	—	—	10	17	25
18	Abbasia for girls	—	—	—	—	5	18	15th
19	Areej for girls	—	—	—	—	5	19	20
20	Al-Batul for girls	—	—	—	—	4	20	12
21	fight for boys	—	8	1	—	—	21	9
22	central boys	6	2	6	—	—	22	14
23	Al-Sabtain for boys	4	7	3	—	—	23	14
24	Martyrs for boys	—	2	4	—	—	24	6
25	Al-Tala'ea for boys	—	2	—	—	—	25	2
26	Republic for boys	—	3	2	—	—	26	5
27	generations for boys	2	1	3	—	—	27	6
28	Asma'i for boys	1	2	3	—	—	28	6
29	Generous for boys	—	1	5	—	—	29	6

30	Imam Hussein (peace be upon him)	—	2	—	—	—	30	2
31	Martyr Mutlaq Hanoun	—	3	2	—	—	31	5
32	Basra for boys	—	3	3	—	—	32	6
33	Al Abbas for boys	—	3	—	—	—	33	3
34	Ghanem Sawadi for boys	—	4	—	—	—	34	4
35	Alhamdulillah for boys	2	3	—	—	—	35	5
	Total	15th	46	32	11	135	161	400

3.4 The research tool:

The process of preparing the research tool went through the following stages:

3.4.1 Constructing a research tool:

1- Survey questionnaire:

We designed a questionnaire to collect information and data on the subject from the students. The questionnaire consisted of a group of questions about their opinion of the educational system (biological and applied) and whether they are for or against the system stating their reasons for their choice. After collecting and filling in the forms, we obtained a survey from a group of paragraphs, which in its initial form, consisted of (35) paragraphs. The exploratory sample consisted of (100) male and female students in the preparatory stage randomly selected from (10) preparatory schools in Basra Governorate and as illustrated in Table (3).

Table (3): The exploratory sample of the research distributed according to the geographical location of the preparatory school and the gender

	School name	Geographic location	Number of students		
			Total	Male	Female
1	Preparatory sacrifice for boys	Karma / Abu Sakhir	10	10	—
2	Al Hartha Preparatory School for Boys	Alhartha	10	10	—
3	Miqat Preparatory School for Girls	associations	10	—	10
4	Warka secondary school for girls	Al-Hussein neighborhood	10	—	10
5	Al-Sham Preparatory School for Girls	Karma / Abu Sakhir	10	—	10
6	Al-Tala'ea Preparatory School for Boys	Saad Square Apartments	10	10	—
7	Al-Irtiqaa Preparatory School for Girls	Al Kafaat District	10	—	10
8	Al-Mutanabbi Preparatory School for Boys	outside	10	10	—

9	Al-Rasoul Preparatory School for Boys	petal	10	10	—
10	Asfia prep school for boys	Saad Square Apartments	10	10	—
Total			100	60	40

2. Instrument validity:

This is one of the necessary conditions that should be met in the tool adopted by any researcher. Any test must be valid and measure the goal for which it was set (Al-Zahir, *et al.*, 2002, p. 132).

In order to ensure the accuracy of the scale, the following types of validation were used:

A) Virtual validity:

The scale was presented to (15) experts. The purpose of this was to identify the validity of the paragraphs of the scale, its instructions and its alternatives as an appropriate tool for measuring what it was developed for, which is evaluating the reality of the applied and biological system.

After collecting the forms and analyzing them and extracting the percentage of approval or non-approval of the paragraphs, the paragraphs that obtained a percentage of (80%) or more were accepted (after the experts' approval as valid paragraphs) (Al-Kubaisi, 2010, p. 35) and as shown in Table (4).

Table (4): Percentage of expert and arbitrator opinions

Paragraph numbers	Number of paragraphs	Agree	Disagree	Percentage
11,5,2	3	15th	0	100%
28,24,22,17,15,12,10,9,7	9	14	1	93.33%
34,33,32,29,26,21,19,13,8,6,3,1	12	13	2	86.66%
35,31,30,27,25,23,20,18,16,14,4	11	12	3	80%

We note from the table that all the paragraphs of the scale have obtained (80%) or more of the arbitrators' approval so they were accepted in the scale, with the amendments and the merger of similar and duplicate paragraphs as suggested by some arbitrators.

3.5 Statistical Analysis of the paragraphs:

3.5.1 The discriminatory validity of the items of the educational system evaluation scale:

The discriminatory validity of the students' scale items was verified by the following steps:

1- The scale was applied to a randomly-selected sample of (410) male and female students who were distributed among (24) schools: (15) for girls and (9) for boys for the biological and applied branches. As can be seen in Table (5), some forms were excluded from them for not completing the response to all the paragraphs. Therefore, (404) forms remained valid for analysis for the purposes of discrimination.

2- We arranged the responses of the sample members in descending order (= from the highest to the lowest).

3- A percentage (27%) of the highest bracket and a percentage (27%) of the lower one were adopted, and the number of the sample was (109) for each bracket. The scores of the students' sample for the higher bracket ranged between (62-87) degrees while those of the lower bracket ranged between (33-53) degrees. Thus, the scores of all members of the discrimination sample ranged between (33-87) degrees.

4- We analysed the items using the t-test for two independent and equal samples to test the significance of the differences between the means of the higher and lower brackets for each of the items. It was found that all items are significant at the level of significance (0.05) with the exception of paragraph No. (31) which shows that it does not distinguish between the higher and lower brackets, so it was excluded from the scale. See table (5).

Table (5): The t-test for two independent samples of equal number to test the significance of the differences between the higher and lower brackets for the purposes of distinguishing the items of the Student Scale.

Statistical significance (0.05)	Paragraph Sequence	calculated t-Values	Higher bracket T = 109		Lower bracket T = 109	
			standard deviation	Arithmetic mean	standard deviation	Arithmetic mean
Significant	1	9.23	0.78	2.48	1.00	2.02
Significant	2	9.36	0.88	1.82	0.28	1.02
Significant	3	11.82	0.89	2.03	0.30	0.98
Significant	4	5.41	0.73	1.77	0.76	1.36
Significant	5	7.24	0.76	1.53	0.27	1.01
Significant	6	6.18	0.67	1.44	0.46	1.11
Significant	7	8.26	0.75	1.55	0.38	1.08
Significant	8	6.05	0.81	1.63	0.66	1.23
Significant	9	12.22	0.77	1.91	0.32	1.09
Significant	10	9.64	0.50	2.77	0.87	2.15
Significant	11	5.95	0.61	1.50	0.47	1.21
Significant	12	4.27	0.82	1.74	0.81	1.45
Significant	13	4.60	0.69	1.41	0.60	1.14
Significant	14	10.26	0.78	2.41	0.94	1.74
Significant	15	11.55	0.91	2.23	0.75	1.32
Significant	16	7.70	0.86	1.79	0.65	1.13
Significant	17	8.78	0.83	1.72	0.21	1.00
Significant	18	14.23	0.68	2.53	0.86	1.55
Significant	19	11.06	0.88	2.28	0.77	1.44
Significant	20	10.47	0.82	2.38	0.91	1.71
Significant	21	5.22	0.86	1.72	0.84	1.52
Significant	22	9.34	0.93	2.08	0.72	1.33
Significant	23	7.50	0.77	1.65	0.54	1.15
Significant	24	5.09	0.90	1.89	0.88	1.66
Significant	25	4.56	0.62	1.34	0.26	1.05
Significant	26	6.24	0.75	1.52	0.47	1.21
Significant	27	8.17	0.81	1.83	0.70	1.40
Significant	28	8.38	0.65	2.41	0.88	2.01
Significant	29	4.92	0.64	2.64	0.83	2.45
Significant	30	8.62	0.82	1.72	0.45	1.10
Insignificant	31	1.09	0.78	1.57	0.86	1.63
Significant	32	10.20	0.74	1.71	0.43	1.08
Significant	33	8.48	0.84	1.76	0.84	1.07
Significant	34	3.59	0.87	1.87	0.90	1.69
Significant	35	10.31	0.81	1.87	0.55	1.25

Values (Tabular t with a degree of freedom (108) for the two-ended test at (0.05) significance level equal to (1.98)

3.5.2 Reliability:

This means that the test is able to produce the same results, or close to them, if it is re-applied to the same individuals under the same conditions (Al-Kharabsheh, 2007, p. 189).

The stability was shown as follows:

1) **Student reliability:** We chose (50) male and female students distributed among (16) schools: (8) for boys and (8) for girls, in the center of Basra Governorate. See Table (6).

Table (6): The student sample that was used to extract stability by the half-segmentation methods and Cronbach's alpha ($n = .$). 50)

	School Name	Total	Number of sample members (students)	
			female	male
1	Al-Shuhada Secondary School for Boys	2	—	2
2	Al Asma'i Preparatory School for Boys	3	—	3
3	Al-Kifah Preparatory School for Boys	2	—	2
4	Al-Akrameen Preparatory School for Boys	1	—	1
5	Central Preparatory School for Boys	2	—	2
6	Generations Preparatory School for Boys	1	—	1
7	Al-Sabtain Preparatory School for Boys	2	—	2
8	Al-Abla Preparatory School for Girls	1	1	—
9	Orouba Preparatory School for Girls	2	2	—
10	Zainab Bint Ali Preparatory School for Girls	10	10	—
11	Karbala Holy High School for girls	10	10	—
12	Warka secondary school for girls	4	4	—
13	Al-Aqeedah Preparatory School for Girls	1	1	—
14	Al Yamama prep school for girls	4	4	—
15	Al-Ahed Al-Zahir Preparatory School for Girls	1	1	—
16	Al-Ashar Preparatory School for Girls	4	4	—
	Total	50	37	13

To check the Students' reliability values, two methods were used:

First: The half-segmentation method: The value of the correlation coefficient between the two halves of the test was calculated and its value was (0.58). After correcting with the Guttman equation, the value of reliability was (0.70).

Second: The alpha-Cronbach equation: The value of the reliability coefficient in this way was (0.67), which is good in light of what is referred to in the literature of psychological and educational measurement. (Odeh & Al-Khalili, 2000, p. 70).

The standard error of the students' scale showed that the results of the scale equation were (3.70), and the true score was 3.70 .

3.5.2 Statistical means and arithmetic means:

The research adopted several statistical methods in order to analyze the data in the stages of preparing the two tools and extracting the results using the statistical package for social sciences.SPSS).

4. Presentation and interpretation of the results

In this section, the results of the research will be presented according to its objectives. The results will also be discussed and interpreted, followed by a presentation of suggested recommendations and proposals based on the results reached.

4.1 Presentation of the results:

Recall that the first objective of this study is to identify the general judgment of the student sample of the preparatory stage about the new academic system for the scientific branch, (biological and applied).

To achieve this goal, the arithmetic means and standard deviations of the scores of the research sample members were extracted from the 400 students, males and females using the T-test for one sample, the results of which appear in Table (7).

Table (7): The results of the one-sample t-test for students' evaluation of the biological and applied system compared to the hypothetical mean of the scale, n = 400

The sample	The number	The arithmetic mean of the sample members on the evaluation scale	Standard deviation	The hypothetical mean of the scale	Indication level		
						tabular	calculated
students	400	55.74	8.01	68	Significance level (0.001)	3.29	30.59

The tabular t-value with a degree of freedom of more than (120) for the two-ended test at the significance level (0.001) equals (3.29).

As can be seen in Table (7), it is clear that there are statistically significant differences at the level of significance (0.001) between the arithmetic mean of the students' responses and the hypothetical mean of the scale. It is noticed that the students' evaluation of the educational system currently applied in the scientific branch is less than the hypothetical mean of the students' scale, which means that they do not express satisfaction with this system, and this result is due to reasons including:

1. The (biological and applied) system causes confusion for students in choosing the appropriate college, as they obtain high rates and are not included in the colleges they aspire to, as well as the unfairness in university academic admission between the two mentioned branches.
2. Choosing the student to specialize in a hasty and unplanned manner, according to the desire of friends and parents.
3. Lack of dividing the topics in the common curricula between (biological and applied) correctly, which causes a great overlap between the two branches in the study subjects. In addition to the above, some school principals refused to open two branches (biological and applied) together, and were satisfied with one branch, either biological or applied. Therefore, students resort to private schools or enroll in schools far from their places of residence, or they are forced to choose the branch available in their schools even without having sufficient desire to join it, in addition to the lack of modern educational means such as laboratories, smart boards, as well as lack of books among other problems.

The second objective of the study is reveal the strengths (positives) and weaknesses (negatives) in each paragraph of the reality of the school system (biological and applied) from the students' point of view. To achieve this goal, weighted means and percentage weights were extracted for each paragraph of the scale, and then arranged in descending order (from the highest paragraph to the lowest). The degree of sharpness of the paragraph has been limited between (2.775-1.887) and weight percentile between (92.5- 62.916), See Table (8).

Table (8): The weighted mean and the percentage weight of the items of the scale for the sample of preparatory stage students

Paragraph sequence	Rank	weight percentage	weighted mean	Paragraph
25	1	92.5	2.775	The high rates in the biological branch, with the lack of non-medical specialties, does not provide an opportunity for admission to universities.
5	2	91,833	2.755	There is no fairness in admissions between the two branches (biological and applied).
6	3	89.916	2,697	The central admission to the university is of a great injustice to the students of the biology department.
2	4	89,333	2.68	The biological and applied system confused me in choosing the right college and institute.
7	5	888,833	2,665	The biological and applied system scattered my thoughts and made me focus on one aspect rather than the other.
11	6	88.333	2.65	Applied and biological system overlap in most materials.
17	7	87.5	2.625	The new system makes my options narrow in whatever branch I choose.
26		87.5	2.625	Not dividing the topics in the common curricula between biology and applied correctly.
13	8	86.916	2.607	This system makes me miss the opportunity to change the choice if my ambition changes, because it directs my admission two years before my university entrance.
23	9	86.666	2.6	Distinguished students do not maintain their levels and their right to admission.
8	10	86,583	2.597	Lack of practical lessons and the use of laboratories in both branches.
9	11	86.5	2.595	The educational environment is not qualified to apply the biological and applied system.
29	12	86.333	2.59	Overlap of the applied system with the literary in the subject of economics.
30	13	85.416	2.562	Choosing one of the branches according to the new system makes me unappreciated for my scientific potential.
10	14	85.083	2.552	The biological and applied system determines my goal if I want the medical group or the engineering and technical group.
32	15th	84.583	2.537	My choice of one of the branches does not suit my true inclinations and my mental preparations.
35	16	84.166	2.525	Lack of coherence in the subjects I study with the later stage.
3	17	83.666	2.51	The biological and applied system did not achieve the desired success as it is in the (scientific and literary) system.
33	18	82.5	2.475	The system is new, but traditional teaching methods do not fit the content.
27	19	81.666	2.45	Some managers did not accept the opening of a biological or applied branch due to a shortage of staff or laboratories.
4	20	81.583	2.447	The Biology and Applied System doubled the lessons.
1	21	80.416	2.412	The Biological and Applied System reduced the cognitive load on my memory.
12	22	78,583	2.357	The new system provides engineering and science faculties and university technological departments with students with low grades.
28		78,583	2.357	The applied system is a broader concept for students and the biology to supplement the materials in the stages.

21	23	78.25	2.347	Raising the admission rates in the biological branch.
16	24	77.5	2.325	This system intersects with most of the systems in the countries in which I want to study.
34	25	77.083	2.312	Reducing Arabic language topics in both branches.
24		77.083	2.312	Lack of functional specialization in relation to the application.
14	26	74.916	2.247	Distribution of students according to their educational level.
20	27	72.916	2.187	The applied branch does not deprive me of applied colleges.
18	28	72.25	2.167	Joining any of the two branches provides me with a good opportunity to be creative.
15	29	71.833	2.155	The applied branch is private, not general, and is not in line with international examinations.
19	30	44.83	1.345	This system is in line with keeping pace with scientific development.
22	31	41,033	1.231	The system is fair in distributing students to colleges and institutes according to their capabilities and desires.

From Table (8), we note that Paragraph No. (25) got the first rank in the scale, with a weighted mean (2.775) and a percentage weight (92.5). This indicates that there is great agreement on this paragraph in terms of the high rates of the biological branch and the lack of medical specialties for them, which leads to many of them going to institutes.

Paragraph No. (5) ranked second in the scale with a weighted mean of (2.755) and a percentage weight of (91.833). This reveals a substantial agreement among the sample members on this paragraph. Paragraph No. (6), which concerns the unfairness of the central admission of the students of the biological department came third. This means the extent of agreement on the suffering caused by this educational system, which came without prior study and discussion of the effects that result from it. Paragraph No. (2) came in fourth place, and this also confirms the confusion and the inability to make the right choice.

Paragraph No (19) came in penultimate place while Paragraph (022) which states came last, i.e. the thirty-first (the lowest rank in the scale) with means of (1.345) & (1.23) and weight percentages (44.83%) & (41.03%). This means that the new system being in line with scientific development is a step that students have not been educated on, and that no steps have been taken towards its success. It also highlights the students' dissatisfaction with the fact that the system is just and they agreed that it is unjust and that their right is compromised in light of this system.

4.2 Recommendations:

- 1- Abolishing the new system and returning to the (scientific vs. literary) system.
- 2- Preparing a special guide to be distributed to students for preparatory school showing the importance of the applied and biological system.
- 3- The necessity of providing laboratories, modern scientific equipment and workshops for the biological and applied branches in order to raise their scientific capabilities.

4.3 Suggestions:

- 1- There is necessity for school administrations to educate students to choose the appropriate branch.
- 2- There is a need for an analytical study of the results of the ministerial exams for the biological and applied branches.
- 3- Evaluation of the educational system for the scientific branch (biological and applied) from the point of view of university students to whom this system was applied in the preparatory stage.

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