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Evaluating Education System "INPUTS" as a Key Interaction for Quality: Case of Greece

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Abstract

Vocational education and training is one of the cornerstones of each country's economy and development. In recent years, vocational education, training and quality have been a matter of priority for education systems as they are the objective of the European strategic framework for education and training. Each educational unit is an open system with inputs, processes and outputs. The study addresses a critical aspect of education: quality assurance in vocational training, with a focus on Greece, a context that has not been extensively explored. It contributes to the ongoing discourse on education quality by evaluating the inputs. Stratified and Cluster sampling was performed for 382 teachers, 594 pupils, 344 adult students and Simple Random sampling for 180 graduates. **Results:** The study showed that: 34.8% of the teachers were satisfied with the financing of the School by the Municipality ($p < 0.001$). The participants were satisfied with the classrooms' ($p < 0.001$) and laboratories' adequacy ($p < 0.001$), as well as the schools' ($p < 0.001$) and laboratories' equipment adequacy ($p < 0.001$). The research groups were not satisfied with the implementation of educational programs by experts within schools ($p < 0.001$). Deficiencies related to teachers' training ($p < 0.001$), in matters concerning the current developments of the profession ($p < 0.001$) and learning difficulties ($p < 0.001$) was mentioned. Lack in the teachers' offer of motivation for professional improvement was presented ($p < 0.001$), even though teachers develop over time ($p < 0.001$). However, teachers support the importance of training ($p < 0.001$). A significant rate of satisfaction was observed by teachers' knowledge ($p < 0.001$), and skills ($p < 0.001$). Teachers are ready to teach any subject assigned to them ($p < 0.001$). Only 44.28% of the groups stated timely filling of teacher vacancies at the beginning of the school year ($p < 0.001$). A few teachers were satisfied with the correctness of the school books ($p < 0.001$). The participants were satisfied with the correlation between school books and requirements of the specialty ($p < 0.001$). 57.68% of students understand the language of books while

51% of the teachers mentioned the existence of ICT in the school ($p < 0.001$).
Conclusions: The research examines the interaction between education system inputs in terms of Quality and Career readiness, offering practical insights. Everyone's concern is to improve the education quality indicators. The participants were quite satisfied with the inputs of the education system. When the indexes were combined with the quality of education, the research groups were satisfied. When the indexes were combined with the career readiness, the research groups were less satisfied. We conclude that the participants' opinions become stricter when there is a correlation with the quality of education and strictest when personal benefit is involved. All variables affect the quality of education and career readiness of pupils and adult students to practice the profession.

Keywords

Quality of Education, Quality Effects, Professional Training, Teachers, Pupils, Adult Students, Graduates, Vocational High Schools, Schools of Higher Vocational Training, Adult Education

1. Introduction

Quality marks the tip of the spear in all aspects of human life for the purpose of improvement and excellence.

As early as the beginning of 2000, the need of better education quality appeared in European policies. During the Lisbon European Council in March 2000, the leaders of the member states adopted the "Lisbon Strategy" which refers to the readjustment of the educational policy of vocational education, based on quality (Ministry of Education, Sports and Youth Cyprus, 2000). The Copenhagen and Bologna processes followed which, aimed at the creation of a measurable "Europe of knowledge" based on standards, axes and quality indicators (Pasias, 2012) as the "catalyst" towards the development of a more comprehensive European education policy (Daglis, 2008). With the application of specific research axes and indicators, the common basis is defined on which the decision-makers of quality are based for its study and evaluation.

In 2009 following the recommendation of the European Parliament and the Council of the EU, for the first time, a European Reference Framework (EQAVET) was created, for Quality Assurance in Vocational Education and Training (European Commission, 2009), as a support framework for quality assurance in vocational education and training Pan-European. EQAVET does not define a specific quality management system, but provides a framework of principles, factors and indicators that enhance the quality of VET. The term "quality assurance" in education refers to the policies, procedures and practices developed with the aim of achieving, maintaining and improving quality in specific areas, through an evaluation process (European Commission/EACEA/Eurydice, 2015) and operating at

an international, national, regional and local level (Zafeiris et al., 2017). Quality assurance or better quality management refers to the systematic review of the educational process for maintenance, improvement and effectiveness. As an institution, it includes the self-evaluation of the school, the external and internal evaluation (evaluation of teachers, school directors, students), (Ministerial Decision 108906/GD4/2021).

In 2020, the EU Council adopted a recommendation recommending that member states develop policies that will improve the quality of vocational education and set goals to be implemented by 2025 (Nektarios et al., 2022). In addition, the Council of the EU, with a related resolution, set 2030 as the year when there will be a strategic framework covering vocational education and training holistically (EU, 2023).

Since the end of the 1990s, in Greece, the leadership of the Ministry of Education, has often used the term "quality of education" as a political slogan, avoiding to give a clear definition (Vlassopoulos & Karkalousos, 2015). However, with the Law 4142/2013, the Authority for Quality Assurance in Primary and Secondary Education (A.D.I.P.P.D.E.) was created, while with the Ministerial Decision 108906/GD4/2021 officially formulated the definition of the internal evaluation of the school unit. Internal evaluation means the continuous improvement of the quality of the educational work provided and its axes, indicators and quality criteria were defined. The indicators are included in organized models which are chosen to facilitate the measurements, with the main goal of improving the educational project.

The frameworks for evaluating the educational work and self-evaluation of the school unit of formal education that were presented in Greece are:

- In 1999, within the framework of the research program "Internal evaluation and planning of the educational project in the school unit", the first evaluation plan was formed under the supervision of Joseph Solomon, vice president of the Pedagogical Institute (Pedagogical Institute, 1999).
- In 2011, in the pilot program "Evaluation of the educational project Self-evaluation process" implemented by the Educational Research Center of the Ministry of Education, a framework for evaluating the educational project was issued (Educational Policy Institute, 2012).
- In 2021, the Ministry of Education issued a decision regarding "Collective planning, internal and external evaluation of school units in terms of their educational work" and defined the axes and quality indicators (Ministerial Decision 108906/GD4/2021), but without to set quality standards.

Quality management involves applications and practical implications in the organization and management of all education and training units (Koutouzis & Prokou, 2005; Garvin, 1988). Each educational unit is an open system with inputs, processes and outputs (Ministry of Education, Lifelong Learning and Religion, 2011; Stergiou et al., 2019), which must be taken into account to determine the quality of the education.

For the overall assessment of quality in education, the parameters that influence it must first be defined and the interaction between them must be determined. The Hellenic Institute of Educational Policy has defined the factors that affect the quality of education (Vlachos & Dagklis, 2008) and concern: a) the administrative framework, b) the teaching-pedagogical framework, c) the logistical infrastructure, d) the support mechanism. Any change in the variables brings about small or large changes in the quality of the system.

2. Objectives and Methods

2.1. Purpose of the Research

The purpose of this study was to investigate the quality of education in Vocational High Schools and Schools of Higher Vocational Training. The research questions related the:

A1) degree of satisfaction with the quality of education provided by the school.

A2) degree of career readiness for practicing the profession upon graduation.

2.2. The sample of the Study

Teachers, pupils and graduates of vocational education (VHS) and adult students (SHVT) from the prefectures of Attica and Cyclades participated in the survey. The final sample consisted of a representative number of participants (men and women of different ages, geographic regions, specialties, etc.), to ensure the reliability and validity of the research. In total, 382 teachers, 594 pupils, 180 graduates, and 344 adult students participated in the survey.

2.3. Method of Sampling

During the sampling design, a mixed sampling, as the most appropriate method, for a more representative sample of the population (teachers, pupils and adult students) was decided (Collins et al., 2007; Sharp et al., 2011), while for graduates a simple random sampling, due to difficulty in finding the sample units was applied.

Population subsets which meet specific properties were selected (Panaretos & Xekalaki, 2000). For this reason, stratified sampling was used to ensure a representative sample of the population of the research groups, to address the specificity of the geographical distribution of the population, (existence of many small islands, some of which have absorbed part of the migration wave through their schools) and to reduce estimation errors (Papoulis, 1966; Halikias et al., 2015). Cluster sampling followed, because the hierarchical sampling plan starts from the educational regions of the country, continues in the school units of each region and ends in the classrooms of the schools (Papageorgiou, 2015). The sampling design was completed by applying simple random sampling between each cluster, as defined in cluster sampling, to select the final sample (Turk & Borkowski, 2005).

The educational regions of Greece are 52 (Ministry of Education, 2023). We

chose stratified sampling for the prefectures of Attica and Cyclades. Each one constitutes a different layer of research. The particularity of this particular study was the participation of populations from urban and semi-urban (island) areas.

The Simple Random Cluster Multistage Sample of equal size was applied (Panaretos & Xekalaki, 2000; Kamalu et al., 2024). Random sampling was ensured by lottery (Halikias et al., 2015). Equal-sized samples were selected from the survey populations. Cluster sampling is carried out in several stages (Farmakis, 2015). Our sampling involved four stages:

- 1st stage, with simple random sampling, the selection of the primary sampling unit was carried out. The regions of the research prefectures were selected.
- 2nd stage, with simple random sampling, the secondary sampling unit was selected, which referred to the Municipalities belonging to the regions of the research.
- 3rd stage, with simple random sampling, the tertiary sampling unit was selected which concerned the schools belonging to the Municipalities of the research.
- 4th stage, the quaternary sampling unit was selected, which involved a classroom from the 1st, 2nd and 3rd grade of the school. The departments were selected by simple random sampling and constituted the research sample.

2.4. Sample Size of Survey Groups

1. The pupils sample size was determined in advance. A sample was selected, representative of the population corresponding to 300 pupils from Attica and 300 pupils of Cyclades. More specifically, an attempt was made to collect 33 questionnaires from each grade of each school. In total, 297 pupils' questionnaires were collected per cluster. This figure corresponded to 3.4% of the total population of Attica and 11.9% of the population of the Cyclades (Greek Statistical Authority, 2022). A total of 594 pupils participated in the survey. For the research reliability, the number of 600 pupils was considered sufficient to reduce sampling error. At each stage, simple random sampling was applied, thus we can use its formula to estimate the maximum error.

In the formula: $e = \frac{1}{\sqrt{n}}$, $e = \frac{1}{\sqrt{n}} = \frac{1}{\sqrt{594}} = 0,041$,

where: "n" corresponded to the sample size used.

For sample size, n = 594 pupils, it is true that 0.041. The maximum error corresponded to 4.1% at the 95% significance level. A similar sampling design for teachers and adult students was applied.

2. The sample size of the teachers was determined in advance. Samples corresponding to 200 teachers from Attica and 200 from Cyclades were selected. The survey was not limited to the teachers of the schools designated in the third stage of sampling. This was achieved to obtain a more representative sample of the population. A total of 3,347 vocational education teachers in the prefectures of Attica and Cyclades were employed (Greek Statistical Authority, 2022). 382 teacher questionnaires were collected. This number corresponded to 9.5% of the total population.

The maximum error corresponded to 5.1% at the 95% significance level.

3. The sample number of adult students was again determined in advance. A sample was selected, corresponding to 300 adult students from Attica and 100 from Cyclades. In the third stage of sampling, the tertiary sampling unit was selected, which concerned the Higher Vocational Training Schools (HVTS) that participated in the research. An effort was made to have adult students from all majors participate. For this reason, the participation of 20 adult students per specialty was sought. A total of 3,960 vocational education adult students studied in the prefectures of Attica and Cyclades (Educational Scale, 2022). 344 questionnaires were collected. This number corresponded to 8.68 % of the total population. The maximum error corresponded to 5.3% at the 95% significance level.

4. Regarding the vocational education graduates, there were limitations in the selection of the sample, since there was no direct contact with the population. As a result, simple random sampling was applied, despite the disadvantages of the method. The participation of as many graduates as possible was sought. After permission, questionnaires were sent to their personal emails. A total of 180 questionnaires were collected. In the prefectures of Attica and Cyclades, a total of 8,531 students graduated (Greek Statistical Authority, 2022). 180 graduate questionnaires were collected. This number corresponded to 2.44% of the total population. The maximum error corresponded to 7.4% at the 95% significance level.

2.5. The Structure of Questionnaires

During the study, the research teams were asked to complete appropriately structured questionnaires. The questionnaires contained common questions to make comparisons between populations and in order to understand the degree of satisfaction with the quality of education of the schools and the readiness of the apprentices to practice a profession, upon completion of their studies. In writing the questionnaires, clear closed-ended questions were used, using simple language and having appropriate explanations (Papanastasiou & Papanastasiou, 2014). The questionnaires in terms of structure consisted of 4 parts.

Table 1. Questionnaire structure.

Axes of Questions		Number of questions			
		Teachers	*Pupils*	*Graduates*	*Adult students*
Part 1	**Demographic**	25	13	13	12
	Inputs				
Part 2	**Educational infrastructure and resources**	5 (1)	4 (4)	4 (4)	4 (4)
Part 3	**Human resources**	15 (4)	9 (4)	8 (6)	6 (4)
Part 4	**Educational media**	7 (2)	5 (2)	5 (2)	4 (1)

Within the parentheses of Table 1 is shown the reduction of the original variables to significant factors after the factor analysis. Depending on the covariance of

the shared information, the variables were reclassified for better interpretation in the new factors.

Answers were given on a 10-point Likert scale, graded with "1" corresponding to "not at all satisfied" and "10" corresponding to "completely satisfied". Where necessary, the Likert scale was converted to a 3-point scale, with the values "1 - 4" corresponding to "not at all satisfied", "5 - 6" to "somewhat satisfied" and "7 - 10" to "completely satisfied". The time to complete the questionnaires was approximately 20 minutes. The questionnaires in the pilot phase were distributed to 5 teachers and 10 pupils and were answered in the presence of the researcher, after the necessary clarifications were made. Data were collected either directly in the Lime Survey, or in paper form.

2.6. Statistical analysis

Data were analyzed with SPSS 29. The statistical analysis included:

- Descriptive statistical analysis to calculate the mean and percentages of the variables (Vetter, 2017).
- Reliability check of the measurement scale with the Cronbach's Alpha reliability index (Iseris, 2016).
- Chi-square test to check the correlation of the quality variables with the variables related to the research questions. The test was carried out with the Pearson correlation coefficient (Emerson, 2017).
- Normality check using the Kolmogorov-Smirnov test (Heliotis, 2015; Sedgwick, 2010).
- Multi-way analysis of variance (MANOVA). It was tested whether the independent variables (quality indicators) influence the dependent variables (research questions) (Keselman et al., 1998).
- Post Hoc Test with (L.S.D.) of ANOVA to check between which population groups there was a statistically significant difference (Papakonstantinou, 2017).
- Factor Analysis to reduce the variables to important factors (Siomkos & Vasilikopoulou, 2005).
- Application of the Customer Satisfaction Index (C.S.I.) for the degree of satisfaction of participants (Stratford, 2006; Suroto et al., 2016).

2.7. Limitations of the Study

Methodological limitations related to sample size, lack of previous research on the topic, as well as time and bias limitations were presented (Alex, 2023). 700 questionnaires were sent by email to the graduates who could not be reached directly, but in the end only 180 people participated in the survey.

During the literature review, there was a paucity of sources on the effect of indicators on education quality, the effect of indicators on population groups, and the degree of participants' occupational readiness at graduation. Therefore, our results could not be compared with the results from the international literature.

The time constraints did not apply to the researcher or the education structures, but to all education systems worldwide due to the pandemic.

3. Results

3.1. Descriptive Statistics

The results of the descriptive analysis concerning the values of the sample means of the populations are gathered in Table 2, while the satisfaction rates of the participants are presented in Table 3.

Table 2. Descriptive statistics of research groups (difference through values) for education quality indicators. One-Way ANOVA values are presented to test for statistically significant differences between study groups.

		Average survey group responses					One-Way ANOVA
Name of Variables	Quality Indicators	Teachers	Pupils	Graduates	Adult students	Average	Post Hoc Test L.S.D. Sig. p-value
	Inputs						
A1	**Educational infrastructure and resources**						
A1.1	Adequacy of classrooms	6.30	6.43	7.51	6.94	6.80	<0.001
A1.2	Adequacy of Laboratories	6.35	6.90	7.38	6.10	6.68	<0.001
A1.3	Adequacy of school equipment	6.28	6.29	7.07	5.16	6.20	<0.001
A1.4	Adequacy of laboratory equipment	6.43	6.84	7.16	5.39	6.46	<0.001
A1.5	Funding of the School by the Municipality	5.37	-	-	-	5.37	-
	Average degree of satisfaction	6.15	6.62	7.28	5.89	6.30	-
A2	**Human resources**						
A2.1	Filling teacher vacancies	4.47	5.11	6.04	7.36	5.75	<0.001
A2.2	Covering vacancies for teachers in parallel support	4.54	5.80	6.08	-	5.47	<0.001
A2.3	Filling vacancies of support staff	4.74	5.93	5.76	7.02	5.86	<0.001
A2.4	Filling administrative staff vacancies	3.36	5.43	6.39	5.63	5.2	<0.001
A2.5	Filling psychologist vacancies	3.36	3.87	-	-	3.62	0.007
A2.6	Knowledge of teachers in theoretical courses	8.67	7.85	8.93	7.99	8.36	<0.001
A2.7	Skills of teachers in laboratory courses	8.18	8.02	8.83	8.09	8.28	<0.001
A2.8	Ability to teach any cognitive subject assigned to teachers	8.01	-	-	-	8.01	-
A2.9	Providing assistance from the trainings	7.32	-	-	-	7.32	-
A2.10	Implementation of trainings	4.26	-	-	-	4.26	-
A2.11	Implementation of educational programs by experts (within the school)	3.60	5.54	5.55	5.15	4.96	<0.001
A2.12	Training on issues related to learning disabilities, (Dyslexia, ADHD)	3.82	-	-	-	3.82	-
A2.13	Training in the current developments of the vocation	4.99	-	-	-	4.99	-
A2.14	Teacher development over time	6.19	6.22	7.61	-	6.67	<0.001

Continued

A2.15	Offer incentives for professional improvement	3.54	-	-	- 3.54	-
	Average degree of satisfaction	5.27	5.97	6.89	6.87 5.74	-
A3	**Educational media**					
A3.1	Correctness of school books, (no errors)	4.34	-	-	- 4.34	-
A3.2	Appropriate schoolbooks, (pedagogically appropriate)	4.62	-	-	- 4.62	-
A3.3	Usefulness of educational materials of the Ministry of Education, Photodentro, etc.	4.90	4.66	5.64	- 5.07	<0.001
A3.4	Use of teaching aids	8.08	6.22	6.89	7.54 7.18	<0.001
A3.5	Existence of suitable teaching aids, ICT, supervisory material, etc.	6.59	6.07	6.68	5.22 6.14	<0.001
A3.6	Understanding the language of books	4.80	7.08	7.87	7.45 6.80	<0.001
A3.7	Correlation of manuals with the requirements of the profession	4.99	7.01	7.40	7.91 6.83	<0.001
	A*verage degree of satisfaction*	5.47	6.20	6.89	7.03 5.85	-

Post Hoc Test was applied to see between which study groups there was statistically significant difference. Table 2 shows in blue letters the largest differences in means between the responses of the research groups.

Table 3. Table of relative frequencies with satisfaction rates for all quality indicators and all categories of participants. Descriptive statistics (participant satisfaction rates).

		Inputs												
	Groups	**Teachers**			**Pupils**			**Graduates**			**Adult students**			
Increasing Number	Quality Indicators	Little	Enough	Very	Little	Enough	Very	Little	Enough	Very	Little	Enough	Very	Average of positive responses
A.	**Satisfaction with the school's quality of education**	**6.3%**	**33.5%**	**60.2%**	**6.6%**	**25.6%**	**67.8%**	**3.9%**	**19.4%**	**76.7%**	**7.8%**	**32.6%**	**59.6%**	**66.08%**
		Educational infrastructure and resources												
A1.1	Adequacy of classrooms	15.2%	32.5%	52.4%	13.1%	34%	52.9%	6.7%	17.2%	76.1%	11.9%	23.8%	64.2%	61.40%
A.12	Adequacy of laboratories	15.8%	28.9%	55.3%	11%	26.7%	62.3%	9.4%	19.4%	71.1%	22.8%	26%	51.2%	59.98%
A1.3	Adequacy of school equipment	12.8%	34.3%	52.9%	15.5%	32.3%	52.2%	10%	21.7%	68.3%	31.7%	31.4%	36.9%	52.58%
A1.4	Adequacy of laboratory equipment	12.3%	32.7%	54.9%	12%	24.8%	63.1%	9.4%	22.8%	67.8%	29.8%	30.1%	40.1%	56.48%
A1.5	Funding of the School by the Municipality	25.1%	40.1%	34.8%	-	-	-	-	-	-	-	-	-	34.80%

Continued

	Human resources													
A2.1	Filling teacher vacancies	39%	38.7%	22.3%	33.5%	33.2%	33.3%	24.4%	23.9%	51.7%	9.9%	20.3%	69.8%	44.28%
A2.2	Covering vacancies for teachers in parallel support	37.2%	38.7%	24.1%	32%	20.2%	47.8%	22.2%	28.9%	48.9%	-	-	-	40.27%
A2.3	Filling vacancies of support staff	38.2%	33.8%	28.0%	22.9%	32.3%	44.8%	27.2%	28.9%	43.9%	11.6%	21.2%	67.2%	45.98%
A2.4	Filling administrative staff vacancies	62%	20.4%	17.5%	30.1%	29%	40.9%	18.9%	26.1%	55.0%	27%	28.2%	44.8%	39.55%
A2.5	Filling psychologist vacancies	61%	26.4%	12.6%	54.4%	21%	24.6%	-	-	-	-	-	-	18.60%
A2.6	Knowledge of teachers in theoretical courses	0.3%	5%	94.8%	6.7%	15.8%	77.4%	1.1%	5.6%	93.3%	5.8%	14%	80.2%	86.43%
A2.7	Skills of teachers in laboratory courses	0.4%	14.8%	84.8%	6%	13.9%	80.1%	0.6%	7.8%	91.7%	5%	11.4%	83.6%	85.05%
A2.8	Ability to teach any cognitive subject assigned to teachers	2.9%	13.4%	83.8%	-	-	-	-	-	-	-	-	-	83.80%
A2.9	Providing assistance from the trainings	9.7%	18.3%	72.0%	-	-	-	-	-	-	-	-	-	72.00%
A2.10	Implementation of trainings	41.9%	38.5%	19.6%	-	-	-	-	-	-	-	-	-	19.60%
A2.11	Implementation of educational programs by experts (within the school)	54.7%	31.9%	13.4%	26.4%	31.6%	41.9%	31.1%	26.7%	42.2%	38.4%	23%	38.7%	34.05%
A2.12	Training on issues related to learning disabilities, Dyslexia, ADHD	59.2%	16%	24.9%	-	-	-	-	-	-	-	-	-	24.90%
A2.13	Training in the current developments of the vocation	35.9%	27.2%	36.9%	-	-	-	-	-	-	-	-	-	36.90%
A2.14	Teacher development over time	16%	35.1%	49.0%	17.7%	31.3%	51.0%	6.7%	20.6	72.8%	-	-	-	57.60%
A2.15	Offer incentives for professional improvement	54.2%	33.8%	12.0%	-	-	-	-	-	-	-	-	-	12.00%
	Educational media													
A3.1	Correctness of schoolbooks	38.5%	43.2%	18.3%	-	-	-	-	-	-	-	-	-	18.30%
A3.2	Appropriate schoolbooks, (pedagogically appropriate)	33.8%	45.3%	20.9%	-	-	-	-	-	-	-	-	-	20.90%
A3.3	Usefulness of educational materials of the Ministry of Education, Photodentro, etc.	29.1%	44.5%	26.4%	38.6%	32.8%	28.6%	30%	27.2%	42.8%	-	-	-	32.60%

Continued

A3.4	Use of teaching aids	1.6%	9.9%	88.5%	12.6%	39.4%	48.0%	10%	24.4%	65.6%	6.7%	20.9%	72.4%	68.63%
A3.5	Existence of suitable teaching aids, ICT, supervisory material, etc.	11%	32.5%	56.5%	20.4%	31.3%	48.3%	9.4%	31.1%	59.4%	33.4%	26.7%	39.8%	51.00%
A3.6	Understanding the language of books	25.7%	56.3%	18.1%	15.2%	21.7%	63.1%	6.1%	14.4%	79.4%	11.3%	18.6%	70.1%	57.68%
A3.7	Correlation of manuals with the requirements of the profession	26.2%	50.3%	23.4%	11.4%	26.7%	62.0%	6.1%	22.8%	71.1%	4.1%	16.6%	79.4%	58.98%

The average satisfaction score of all survey groups is shown in the last column of the table.

3.2. Reliability Check

The reliability coefficient (Cronbach's alpha) was determined to check if the questions present a high coherence among themselves (Markos, 2012). **Table 4** shows

Table 4. Cronbach's alpha reliability coefficient values for the research axes.

Research axes		Cronbach's Alpha degree of reliability for each research axis			
		Inputs			
Axis names	**Research groups**	**Teachers**	**Pupils**	**Graduates**	**Adult students**
A1	**Educational infrastructure and resources**	0.896	0.830	0.919	0.889
A2	**Human resources**	0.831	0.759	0.859	0.753
A3	**Educational media**	0.785	0.662	0.728	0.613

Table 5. Frequency distribution table. The values of the Chi-square test for the quality indicators concerning the degree of satisfaction with the quality of education provided by the school, (A research question) and the degree of career readiness upon graduation, (B research question).

Variables		VAR (A) Degree of satisfaction with the quality of education provided by the school																			
		Teachers					Pupils					Graduates					Adult students				
		Little	Enough	Very	Total	p-value	Little	Enough	Very	Total	p-value	Little	Enough	Very	Total	p-value	Little	Enough	Very	Total	p-value
VAR (D11) Degree of Career readiness upon graduation	Little	2.6%	5%	4.5%	**12%**		3.1%	5.4%	6.4%	**14.8%**		2.8%	4.4%	8.3%	**15.6%**		2%	6.1%	4.9%	**13.1%**	
	Enough	2.9%	20.9%	28.3%	**52.1%**	**<0.001**	0.8%	8.2%	17.1%	**26.2%**	**<0.001**	1.1%	8.3%	21.1%	**30.6%**	**<0.001**	2.3%	13.4%	14.8%	**30.5%**	**<0.001**
	Very	0.8%	7.6%	**27.5%**	**35.9%**		2.7%	12.8%	**43.5%**	**59%**		0.0%	6.7%	**47.2%**	**53.9%**		3.5%	13.1%	**39.8%**	**56.4%**	
Total		6.3%	33.5%	60.2%	**100%**		6.6%	26.4%	67%	**100%**		3.9%	19.4%	76.7%	**100%**		7.8%	32.6%	59.6%	**100%**	

that the reliability indices were high for all categories of respondents and for all questions axes.

3.3. Chi-Square Test

It was performed to test the correlation of the quality indicators with the variables related to the research questions

Table 5 is an example. By applying 208 similar tables, Table 6 was created, in which only the percentages of very satisfied participants from the quality indicators of both research questions are included

Table 6. Correlation of the quality indicators with the research questions, (Chi square test). Control of the effect of the independent quality variables on the dependent ones corresponding to the research questions, (use of MANOVA). The values in the table relate to a superlative degree of satisfaction of the quality indicators.

Variable Names	Quality indicators	Research Questions	Teachers	p-value	Pupils	p-value	Graduates	p-value	Adult students	p-value	Average satisfaction	Multivariate Hotteling' s trace test	Test of between – subject effects
A	Satisfaction with the quality of school education.	A	Research question, (Chi-square does not give results)									<0,001	<0,001
		B	27.5%	<0.001	43.5%	<0.001	47.2%	<0.001	39.8%	<0.001	39.50%		<0.001
			Inputs										
A1.1	Adequacy of classooms	A	35.3%	0.011	40.1%	<0.001	64.4%	<0.001	44.2%	<0.001	46.00%	<0.001	<0.001
		B	19.9%	0.095	30.9%	0.586	47.2%	<0.001	36.3%	0.860	33.58%		<0.001
A1.2	Adequacy of Laboratories	A	39.4%	<0.001	47.2%	<0.001	59.4%	<0.001	38.7%	<0.001	46.18%	<0.001	<0.001
		B	25.4%	<0.001	39.1%	0.022	45.0%	<0.001	32.8%	0.009	35.58%		<0.001
A1.3	Adequacy of school equipment	A	38.0%	<0.001	41.4%	<0.001	59.4%	<0.001	29.9%	<0.001	42.18%	<0.001	<0.001
		B	22.0%	0.022	34.0%	<0.001	45.0%	<0.001	24.7%	0.002	31.43%		<0.001
A1.4	Adequacy of laboratory equipment	A	41.5%	<0.001	46.0%	<0.001	57.2%	<0.001	32.3%	<0.001	44.25%	<0.001	<0.001
		B	24.6%	<0.001	38.5%	0.008	43.9%	<0.001	26.2%	0.009	33.30%		<0.001
A1.5	Funding of the School by the Municipality	A	27.2%	<0.001	-	-	-	-	-		27.20%	<0.001	<0.001
		B	15.2%	0.003	-	-	-	-	-		15.20%		0.016
A2.1	Timely filling of teacher vacancies	A	17.8%	<0.001	25.4%	<0.001	43.9%	<0.001	48.8%	<0.001	33.98%	<0.001	<0.001
		B	10.5%	0.015	20.4%	0.018	34.4%	<0.001	41.6%	0.025	26.73%		<0.001
A2.2	Timely filling of parallel support teacher vacancies	A	19.9%	<0.001	35.9%	<0.001	41.7%	<0.001	-		32.50%	<0.001	<0.001
		B	12.3%	0.003	27.6%	0.033	32.8%	0.004	-		24.23%		<0.001
A2.3	Timely filling of auxiliary staff vacancies	A	22.5%	<0.001	33.8%	<0.001	38.3%	0.034	47.1%	<0.001	35.43%	<0.001	<0.001
		B	11.8%	0.217	27.0%	0.111	31.7%	<0.001	38.7%	0.065	27.30%		<0.001

Continued

A2.4	Timely filling of administrative staff vacancies	A	14.4%	<0.001	30.5%	<0.001	47.8%	<0.001	33.1%	<0.001	31.45%	<0.001	<0.001
		B	7.9%	0.243	25.8%	0.111	34.4%	0.067	24.4%	0.366	23.13%		<0.001
A2.5	Timely filling of psychologist vacancies	A	9.9%	<0.001	18.9%	0.006	-		-		14.40%	<0.001	<0.001
		B	5.5%	0.406	15.5%	0.753	-		-		10.50%		0.173
A2.6	Sufficient knowledge of teachers in theoretical courses	A	59.4%	<0.001	56.9%	<0.001	74.4%	0.011	56.4%	<0.001	61.78%	<0.001	<0.001
		B	33.8%	0.006	48.5%	<0.001	52.2%	0.050	47.7%	<0.001	45.55%		<0.001
A2.7	Adequacy of teachers' skills in laboratory courses	A	54.5%	0.005	58.0%	<0.001	74.4%	<0.001	57.6%	<0.001	61.13%	<0.001	<0.001
		B	34.3%	0.029	49.7%	<0.001	52.2%	0.004	49.4%	<0.001	46.40%		<0.001
A2.8	Ability to teach any cognitive subject assigned to teachers	A	54.5%	<0.001	-	-	-	-	-	-	54.50%	<0.001	<0.001
		B	31.4%	<0.001	-	-	-	-	-	-	31.40%		<0.001
A2.9	Providing assistance from the trainings	A	47.9%	<0.001	-	-	-	-	-	-	47.90%	<0.001	<0.001
		B	29.8%	<0.001	-	-	-	-	-	-	29.80%		<0.001
A2.10	Implementation of trainings	A	16.0%	<0.001	-	-	-	-	-	-	16.00%	<0.001	<0.001
		B	10.7%	<0.001	-	-	-	-	-	-	10.70%		<0.001
A2.11	Implementation of educational programs by experts (within the school)	A	12.0%	<0.001	33.0%	<0.001	40.6%	<0.001	30.5%	<0.001	29.03%	<0.001	<0.001
		B	6.3%	<0.001	27.6%	0.003	29.4%	<0.001	24.7%	0.029	22.00%		<0.001
A2.12	Adequacy of training in subjects related to learning difficulties, (Dyslexia, ADHD)	A	19.4%	<0.001	-	-	-	-	-	-	19.40%	0.003	<0.001
		B	12.0%	0.027	-	-	-	-	-	-	12.00%		0.023
A2.13	Adequacy of training in the current developments of the vocation	A	27.7%	<0.001	-	-	-	-	-	-	27.70%	<0.001	<0.001
		B	18.6%	<0.001	-	-	-	-	-	-	18.60%		<0.001
A2.14	Teacher development over time	A	38.0%	<0.001	41.6%	<0.001	63.3%	<0.001	-	-	47.63%	<0.001	<0.001
		B	22.0%	<0.001	34.6%	<0.001	45.6%	<0.001	-	-	34.07%		<0.001
A2.15	Offer incentives for professional improvement	A	11.3%	<0.001	-	-	-	-	-	-	11.30%	<0.001	<0.001
		B	7.1%	<0.001	-	-	-	-	-	-	7.10%		<0.001
A3.1	Schoolbook correctness, (no errors)	A	14.4%	<0.001	-	-	-	-	-	-	14.40%	<0.001	0.003
		B	8.4%	<0.001	-	-	-	-	-	-	8.40%		<0.001
A3.2	Suitability of schoolbooks, (pedagogically appropriate)	A	16.5%	<0.001	-	-	-	-	-	-	16.50%	<0.001	<0.001
		B	9.9%	<0.001	-	-	-	-	-	-	9.90%		<0.001
A3.3	Usefulness of educational materials of the Ministry of Education, Photodentro, etc.	A	20.4%	<0.001	23.6%	<0.001	38.9%	<0.001	-	-	27.63%	<0.001	<0.001
		B	13.1%	0.002	19.0%	0.030	27.2%	0.042	-	-	19.77%		<0.001
A3.4	Use of teacher support materials	A	55.8%	0.001	37.0%	<0.001	56.1%	<0.001	48.8%	<0.001	49.43%	<0.001	<0.001
		B	32.5%	0.402	31.3%	<0.001	40.0%	0.017	45.6%	<0.001	37.35%		<0.001
A3.5	Existence of appropriate teaching tools, ICT, etc.	A	39.3%	<0.001	38.4%	<0.001	52.2%	<0.001	31.7%	<0.001	40.40%	<0.001	<0.001
		B	22.3%	0.004	30.5%	0.012	38.3%	<0.001	26.2%	0.010	29.33%		<0.001

Continued

A3.6	Students' understanding of book language	A	14.4%	<0.001	47.0%	<0.001	66.7%	<0.001	45.3%	0.012	43.35%	<0.001	<0.001
		B	8.6%	<0.001	41.9%	<0.001	46.1%	0.008	41.0%	0.142	34.40%		<0.001
A3.7	Correlation of manuals with the requirements of the profession	A	19.3%	<0.001	47.1%	<0.001	60.6%	<0.001	54.4%	<0.001	45.35%	<0.001	<0.001
		B	14.5%	<0.001	38.8%	<0.001	43.9%	<0.001	50%	<0.001	36.80%		<0.001
D11	Career readiness upon graduation	A	27.5%	<0.001	43.5%	<0.001	47.2%	<0.001	39.8%	<0.001	39.50%	<0.001	<0.001
		B	Research question. (Chi-square does not give results)									<0.001	<0.001

The Pearson correlation coefficient showed a high correlation between the quality indica tors and the research questions. Most responses were statistically significant at the $p < 0.001$ level of significance. The last column concerns the MANOVA test to check the effect of the two dependent on independent variables. From the Ottelling's Trace test, the effect of the independent variable on the dependent variable can be seen as a whole. From the Test of Between-Subject Effects of the multiple analysis of variance, the effect of each independent variable on the dependent variable can be seen. The first line of the column corresponds to research question A, while the second to research question B.

3.4. Normality Check

Testing was performed using the Kolmogorov-Smirnov test. It was found that most variables follow the normal distribution with $p > 0.05$. According to the Central Limit Theorem, if the random variables ($X1, X2, \cdots, Xn$) are independent and equal with $E(Xi) = \mu$, $V(Xi) = \sigma^2 < \infty$, $i = 1, 2, \cdots, n$, then, the random variable (Z), asymptotically follows for large n, (typically equal to or greater than 30) the standard normal distribution N (0, 1). Therefore, we can consider that the rest of the distributions also approach the normal ones.

3.5. Multiple Analysis of Variance (MANOVA).

It was checked whether the independent variables (quality indicators) affect the dependent variables concerning the research questions. To interpret the results of the analysis, the Hotelling's test was used, which generally studies the interaction of the independent variable with the two dependent variables (Siomkos & Vasilikopoulou, 2005). However, it does not mention which of the two addicts it affects and to what extent. For extra analysis, the Test of Between-Subject Effect was carried out, where it was stated which dependent variable is affected by the independent one. The test was carried out on the ten-point Likert scale, **Table 6**.

3.6. Post Hoc Test and use of Least Significant Difference (L.S.D.)

It was tested whether the differences in the mean values of the opinions of the four independent populations were statistically significant. Control assumes normality and common dispersion of the populations. The distributions approximate normal. Levene's test was performed for equality of population dispersion. The non-

significance of Levene's test ($p > 0.05$) led to the conclusion that the variances were homogeneous and ANOVA analysis can be used (Siomkos & Vasilikopoulou, 2005).

For the variable (VAR A1.1) concerning the adequacy of the classrooms. We reject the null hypothesis ($p < 0.001$), **Table 2**. The sample means of the populations were statistically significantly different. A greater difference exists between teachers and graduates.

3.7. Factor Analysis

Factor analysis aimed to create new "factors", variables that shrink the variance of the original variables as best as possible, hoping to reduce the dimensions of the problem (Angelidis, 2009). Exploratory factor analysis was applied, using the principal component analysis method to extract the factors (Principal Component Analysis) with orthogonal rotation of the axes (Varimax Rotation) (Tabachnick & Fidell, 2019). The choice of the method was based on suggestions from manufacturers of other similar questionnaires (Mantzoukis & Papantoniou, 2014; Ambatzidou, 2019). The calculations of the analysis were carried out on the ten-point Likert scale. To check the quality of the data, two indicators were checked:

- The Kaiser-Meyer-Olkin Measure of Sampling (K.M.O.) index is also called the measure of sampling adequacy for checking the adequacy of the sample (Mantzoukis & Papantoniou, 2014). The number of samples was excellent since the values of K.M.O., were closed to 0.80, so the application of factorial analysis was allowed (Analysis INN, 2020). K.M.O. values close to 1 are considered ideal.
- The Bartlett's Test of Sphericity index assesses whether the correlations between the variables allow the application of the analysis, values of $p < 0.05$ are satisfactory (Silva et al., 2014). **Table 7** presents the new factors and the variables included in each one.

The new factors concern teachers and were obtained by reducing the variables included in **Table 2** and **Table 3**. Similar factors emerged for the remaining research groups.

Table 7. Factor analysis results.

	Research Axes	Ser. Num.	New factors after factor analysis	Variables before analysis
			Inputs	
A1	**Educational infrastructure and resources**	**1**	Infrastructure and Resources	A1.3, A1.4, A1.2, A1,1, A1.5
A2	**Human resources**	**2**	Training, Motivation and Development of teachers	A2.11, A2.13, A2.12, A2.10, A2.15, A2.14, A2.9
		3	Knowledge and Skills of teachers	A2.7, A2.8, A2.6
		4	Filling teacher vacancies	A2.1, A2.2
		5	Filling other personnel vacancies	A2.4, A2.5, A2.3
A3	**Educational media**	**6**	School books	A4.1, A4.2, A4.7, A4.6
		7	Educational - Supervisory material, Teaching tools, ICT	A4.4, A4.5, A4.3

The original variables that share common information (covariance) and were grouped into the same factor are presented in the last column of Table 7.

The quality variables are interpreted according to the classification and the order they appeared in the factor analysis, based on the percentage of covariance they explained in each factor (Siomkos & Vassilikopoulou, 2005).

The variables' names are not sequential numbers but they are sorted by SPSS factor analysis.

The survey participants' satisfaction rate was assessed based on the quality levels in Table 8. Researchers use Table 1 as a criterion for evaluating the C.S.I. Customer Satisfaction Index (Fitriana et al., 2014).

Table 8. Evaluation criteria of the C.S.I.

Quality index level	Percentage	Degree of satisfaction
1	> 81%	Very satisfied
2	66% - 80.99%	Quite satisfied
3	51% - 65.99%	Satisfied
4	35% - 50.99%	A little satisfied
5	00% - 34.99%	Not at all satisfied

The very satisfied appear with satisfaction rates (above > 81%), the satisfied (51% - 65.99%) and the not at all satisfied (0% - 34.99%). The results of the survey were interpreted according to the above criteria.

From the above tables we find that:

The quality variables are interpreted according to the classification they appeared in the factor analysis, based on the percentage of covariance they interpret in each factor (Siomkos & Vassilikopoulou, 2005).

Regarding the quality of the education provided by the school, a greater percentage of satisfaction was shown by graduates, adult students, followed by pupils and teachers. The average satisfaction rate was 66.08%. *The research groups were quite satisfied,* Table 3.

Among those groups who were very satisfied with the quality of education:

- 27.5% of teachers, 43.5% of pupils, 47.2% of graduates and 39.8% of adult students were satisfied with the readiness of apprentices to practice the profession, ($p < 0.001$), Table 6. The average satisfaction rate in terms of education quality was 39.50%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the education quality was 7.3/10. Graduates appeared most satisfied, followed by pupils, adult students and teachers. The difference in mean scores was statistically significant ($p < 0.001$), Table 2. *The quality of education, ($p < 0.001$) affects the career readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

Inputs

A1. Educational infrastructure and resources

1. Infrastructure and Resources

A1.3 Adequacy of school equipment

Regarding the adequacy of the school's equipment, the highest percentage of satisfaction was shown by the graduates, followed by teachers, pupils and adult students. The average satisfaction rate was 52.58%. *The research groups were satisfied,* Table 3. Of all those groups who supported the adequacy of the schools' equipment:

- 38% of teachers, 41.4% of pupils, 59.4% of graduates and 29.9% of adult students were satisfied with the quality of school education, ($p < 0.001$), Table 6. The average satisfaction rate with the adequacy of the school's equipment in terms of education quality was 42.18%. *The research groups were a little satisfied,* Table 8.
- 22% of teachers, 34% of students, 45% of graduates and 24.7% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction percentage with the adequacy of the school's equipment in terms of the students' career readiness was 31.43%. *The research groups were not satisfied,* Table 7.

The average value of the satisfaction rate with the school equipment's adequacy was 6.20/10. Graduates, pupils and teachers appeared more satisfied followed by adult students. The difference in means was statistically significant ($p < 0.001$), Table 2. *The adequacy of the school's equipment affects education quality, ($p < 0.001$) and the career readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A1.4 Adequacy of laboratory equipment

Graduates and pupils were more satisfied with the adequacy of the laboratory equipment followed by teachers and adult students. The average satisfaction rate was 56.48%. *The research groups were satisfied,* Table 3**.** Of all those groups who supported the adequacy of the laboratory equipment:

- 41.5% of teachers, 46% of pupils, 57.2% of graduates and 32.3% of adult students were satisfied with the quality of school education, ($p < 0.001$), Table 6. The average satisfaction rate with the adequacy of the laboratory equipment in terms of education quality was 44.25%. *The research groups were a little satisfied,* Table 8.
- 24.6% of teachers, 38.5% of pupils, 43.9% of graduates and 26.2% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction percentage with the adequacy of the laboratory equipment in terms of the students' career readiness was 33.30%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the adequacy of the laboratory equipment was 6.46/10. Graduates, pupils and teachers were the most satisfied followed by adult students. The difference in means was statistically significant (p

< 0.001), Table 2. *The equipment's adequacy of the laboratories affects the degree of education quality, (p < 0.001) and the career readiness of the trainees to practice the profession, (p < 0.001),* Table 6.

A1.2 Adequacy of laboratories

Regarding the adequacy of the laboratories, graduates, and pupils showed a higher percentage of satisfaction, followed by teachers and adult students. The average satisfaction rate was 59.98%. *The research groups were satisfied,* Table 3. Of all of those groups who supported the adequacy of the laboratories:

- 39.4% of teachers, 47.2% of pupils, 59.4% of graduates and 38.7% of adult students were satisfied with the quality of school education, (p < 0.001), Table 6. The average satisfaction rate with the adequacy of the laboratories in terms of education quality was 46.18%. The research groups were a little satisfied, Table 8.
- 25.4% of teachers, 39.1% of pupils, 45% of graduates and 32.8% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction percentage with the laboratories' adequacy in terms of the students' career readiness was 35.58%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the laboratories' adequacy was 6.68/10. Graduates, pupils and teachers appeared more satisfied followed by adult students. The difference in means was statistically significant ($p < 0.001$), Table 2. *The adequacy of the laboratories affects the rate of education quality, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A1.1 Adequacy of classrooms

Regarding the classrooms' adequacy, the highest percentage of satisfaction was shown by graduates, adult students, followed by pupils and teachers. The average satisfaction rate was 61.4%. *The research groups were satisfied,* Table 3. Of all those groups who supported the classrooms' adequacy:

- 35.3% of teachers, 40.1% of pupils, 64.4% of graduates and 44.2% of adult students were satisfied with the quality of school education, ($p < 0.05$), Table 6. The average satisfaction rate with the classrooms' adequacy in terms of education quality was 46%. *The research groups were a little satisfied,* Table 8.
- 19.9% of teachers, 30.9% of pupils, 47.2% of graduates and 36.3% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p > 0.05$), Table 6. The average satisfaction percentage with the classrooms' adequacy in terms of the students' career readiness was 33.58%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the classrooms' adequacy was 6.80/10. Graduates and adult students were more satisfied, followed by pupils and teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The adequacy of the rooms affects the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, (p <*

0.001), Table 6.

A1.5 Funding of the School by the Municipality

34.8% of teachers appeared satisfied with the financing of the schools by the Municipality. *Teachers were not satisfied with the school's funding from the Municipality,* Table 3. Of the teachers who supported the school's funding by the Municipality:

- 27.2% were satisfied with the school's education quality, ($p < 0.001$), Table 6. Teachers *with the schools' funding in terms of education quality were not satisfied,* Table 8.
- 15.2% were satisfied with the students' career readiness to practice the profession, ($p < 0.05$), Table 6. *Teachers with the schools' funding in terms of students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the school's funding was 5.37/10, Table 2. *The school's funding affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A2. Human resources

2. Training, Motivation and Development of Teachers

A2.11 Implementation of educational programs by experts, within the school

Regarding the implementation of educational programs by experts, within the school, a greater percentage of satisfaction was shown by graduates, pupils, adult students followed by teachers. The average satisfaction rate was 34.05%. *The research groups were not satisfied,* Table 3. Of all those groups who supported the implementation of educational programs by specialists, within schools:

- 12% of teachers, 33% of pupils, 40.6% of graduates and 30.5% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the implementation of educational programs by specialists in terms of education quality was 29.03%. *The research groups were not satisfied,* Table 8.
- 6.3% of teachers, 27.6% of pupils, 29.4% of graduates and 24.7% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction rate with the implementation of educational programs by experts, in terms of the students' career readiness was 22%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the implementation of educational programs by experts was 4.96/10. Graduates, pupils and adult students were the most satisfied, followed by teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The realization of educational programs by specialists affects the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.13 Training in the current developments of the profession

36.9% of teachers appeared satisfied with the trainings in the current developments of the profession. *Teachers were a little satisfied,* Table 3. Of the teachers

who supported the existence of training in the current developments of the profession:

- 27.7% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers* with *the training in the current developments of the profession in terms of education quality were not satisfied,* Table 8.
- 18.6% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers with the training in the current developments of the profession in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the existence of training in the current developments of the profession was 4.99/10, Table 2. *The existence of training in the current developments of the profession affects the degree of quality of education rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.12 Training in subjects related to learning difficulties

24.9% of the teachers were satisfied with the training in subjects related to learning difficulties. *Teachers were not satisfied,* Table 3. Of the teachers who supported the trainings in subjects related to learning difficulties:

- 19.4% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers with the training in subjects related to learning difficulties in terms of education quality were not satisfied,* Table 8.
- 12% were satisfied with the students' career readiness to practice the profession, ($p < 0.05$), Table 6. *Teachers with the training in subjects related to learning* difficulties *in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the training in subjects related to learning difficulties was 3.82/10. Table 2. *The training in learning difficulties has an effect on the education's quality rate, ($p < 0.001$) and on the career readiness of the trainees to practice the profession, ($p < 0.05$),* Table 6.

A2.10 Implementation of trainings

19.6% of the teachers were satisfied with the implementation of the trainings. *Teachers were not satisfied,* Table 3. Of the teachers who supported the realization of trainings:

- 16% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers* with *the implementation of trainings in terms of education quality were not satisfied,* Table 8.
- 10.7% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers with the implementation of trainings in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the realization of trainings was 4.26/10, Table 2. *The offer of essential trainings affects the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.15 Offer incentives for professional improvement

12% of teachers were satisfied with the offer of incentives for their professional improvement. *Teachers were not satisfied,* Table 3. Of the teachers who supported offering incentives for professional improvement:

- 11.3% were satisfied with the school's education quality, ($p < 0.001$), Table 6. Teachers *with the offer incentives for professional improvement in terms of education quality were not satisfied,* Table 8.
- 7.1% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers with the offer incentives for professional improvement in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the offer of incentives for professional improvement was 3.54/10, Table 2. *The offer of incentives to teachers affects the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.14 Teacher development over time

Concerning the development of a teacher over time, the highest percentage of satisfaction was shown by graduates, followed by students and teachers. The average satisfaction rate was 57.6%. *The research groups were satisfied,* Table 3. Of all those groups who supported the development of teachers over time:

- 38% of teachers, 41.6% of pupils and 63.3% of graduates were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the teachers' development over time in terms of education quality was 47.63%. *The research groups were a little satisfied,* Table 8.
- 22% of teachers, 34.6% of pupils, 45.6% of graduates were satisfied with the career readiness of the apprentices to practice the profession, ($p < 0.001$), Table 6. The average satisfaction rate with the teachers' development over time in terms of the students' career readiness was 34.07%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the development of teachers over time was (6.67/10). Graduates were the most satisfied, followed by pupils and teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The development of teachers affects the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.9 Provision of assistance from trainings

72% of the teachers mentioned the importance of providing help from trainings. Teachers reported the importance of providing help from trainings, Table 3. Of the teachers who supported the importance of providing help from trainings:

- 47.9% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers with the provision of assistance from trainings in terms of education quality were a little satisfied,* Table 8.
- 29.8% were satisfied with the students' career readiness to practice the

profession, ($p < 0.001$), Table 6. *Teachers with the provision of assistance from training in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the provision of help from the trainings was 7.32/10, Table 2. *The trainings help the degree of quality of education rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

3. Knowledge and Skills of Teachers

A2.7 Skills of teachers in laboratory courses

Concerning the skills of teachers in laboratory courses, graduates showed a higher percentage of satisfaction, followed by teachers, adult students and pupils. The average satisfaction rate was 85.05%. *The research groups were very satisfied,* Table 3. Of all those groups who supported the skills of the teachers in the laboratory courses:

- 54.5% of teachers, 58% of pupils, 74.4% of graduates and 57.6% of adult students were satisfied with the schools' education quality, ($p < 0.05$), Table 6. The average satisfaction rate with the teachers' skills in laboratory courses in terms of education quality was 61.13%. *The research groups were satisfied,* Table 8.
- 34.3% of teachers, 49.7% of pupils, 52.2% of graduates and 49.4% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction percentage with the teachers' skills in the laboratory courses in terms of the students' career readiness was 46.4%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the teachers' skills in the laboratory courses was 8.28/10. Graduates appeared most satisfied, followed by teachers, adult students and pupils. The difference in means was statistically significant ($p < 0.001$), Table 2. *The skills of the teachers in the laboratory courses affect the degree of education quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

A2.8 Ability (proficiency) to teach any cognitive subject assigned to teachers

83.8% of teachers reported proficiency in teaching any subject assigned to them. *Teachers were satisfied,* Table 3. Of the teachers who supported the ability to teach any cognitive subject they were assigned:

- 54.5% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers* with *the ability to teach any cognitive subject assigned to them in terms of education quality were satisfied,* Table 8.
- 31.4% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers with the ability to teach any cognitive subject assigned to them in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the teaching of any cognitive subject assigned to them was 8.01/10, Table 2. *The ability to teach any cognitive subject assigned to them affects the degree of education quality rate, ($p <$*

0.001) and the readiness of the trainees to practice the profession, ($p < 0.001$), Table 6.

A2.6 Knowledge of teachers in theoretical courses

Regarding the teachers' knowledge in theoretical courses, teachers, graduates showed a higher percentage of satisfaction, followed by adult students and pupils. The average satisfaction rate was 86.43%. *The research groups were very satisfied,* Table 3. Of all those groups who supported the knowledge of the teachers in the theoretical courses:

- 59.4% of teachers, 56.9% of pupils, 74.4% of graduates and 56.4% of adult students were satisfied with the schools' education quality, ($p < 0.05$), Table 6. The average satisfaction rate with the teachers' knowledge in theoretical courses in terms of education quality was 61.78%. *The research groups were satisfied,* Table 8.
- 33.8% of teachers, 48.5% of pupils, 52.2% of graduates and 47.7% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction rate with the teachers' knowledge in theoretical courses in terms of the students' career readiness was 45.55%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with teachers' knowledge in the theoretical courses was 8.36/10. Graduates and teachers appeared more satisfied, followed by adult students and pupils. The difference in means was statistically significant ($p < 0.001$), Table 2. *The knowledge of the teachers in the theoretical courses affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

4. Filling Teacher Vacancies

A2.1 Filling teacher vacancies

As for the filling of teacher vacancies, adult students, graduates showed a higher percentage of satisfaction, followed by pupils and teachers. The average satisfaction rate was 44.28%. *The research groups were a little satisfied,* Table 3. Of all those groups who supported timely filling teacher vacancies:

- 17.8% of teachers, 25.4% of pupils, 43.9% of graduates and 48.8% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the Filling teacher vacancies in terms of education quality was 33.98%. *The research groups were not satisfied,* Table 8.
- 10.5% of teachers, 20.4% of pupils, 34.4% of graduates and 41.6% of adult students were satisfied with the readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction rate with the Filling teacher vacancies in terms of the students' career readiness was 26.73%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with filling teacher vacancies was 5.75/10. Adult students, graduates, pupils and teachers were the most satisfied. The difference in means was statistically significant ($p < 0.001$), Table 2. *The filling of teachers' gaps affects the degree of quality of education rate, ($p < 0.001$) and*

the readiness of the trainees to practice the profession, ($p < 0.001$), Table 6.

A2.2 Covering vacant posts of parallel support teachers

Regarding the filling of vacant posts in parallel support teachers, graduates and pupils showed a higher percentage of satisfaction followed by teachers. The average satisfaction rate was 40.27%. *The research groups were a little satisfied,* Table 3. Of all those groups who supported the timely filling of parallel support teacher vacancies:

- 19.9% of teachers, 35.9% of pupils and 41.7% of graduates were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the Covering vacant posts of parallel support teachers in terms of education quality was 32.5%. *The research groups were not satisfied,* Table 8.
- 12.3% of teachers, 27.6% of pupils, 32.8% of graduates were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction rate with the covering vacant posts of parallel support teachers in terms of the students' career readiness was 24.23%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the filling of parallel support teacher vacancies was 5.47/10. Graduates and pupils appeared more satisfied followed by teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The filling of gaps of parallel support teachers affects the degree of quality of education rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$),* Table 6.

5. Filling Other Personnel Vacancies

A2.4 Filling administrative staff vacancies

Concerning the filling of vacancies in administrative staff, graduates, adult students and pupils showed a higher percentage of satisfaction followed by teachers. The average satisfaction rate was 39.55%. The research groups were a little satisfied, Table 3. Of all those groups who supported timely filling of administrative staff vacancies:

- 14.4% of teachers, 30.5% of pupils, 47.8% of graduates and 33.1% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the timely filling of administrative staff vacancies in terms of education quality was 31.45%. *The research groups were not satisfied,* Table 8.
- 7.9% of teachers, 25.8% of pupils, 34.4% of graduates and 24.4% of adult students were satisfied with the career readiness of apprentices, ($p > 0.05$), Table 6. The average satisfaction rate with the timely filling of administrative staff vacancies in terms of the students' career readiness was 23.13%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with filling administrative staff vacancies was 5.2/10. Graduates, adult students, and pupils were the most satisfied followed by teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The filling of administrative staff vacancies affects the degree of education*

quality rate, ($p < 0.001$) and the readiness of the trainees to practice the profession, ($p < 0.001$), Table 6.

A2.5 Filling psychologist vacancies

As for the filling of vacancies for psychologists, students showed the highest percentage of satisfaction, followed by teachers. The average satisfaction rate was 18.6%. *The research groups were not satisfied* Table 3. Of all those groups who supported the timely filling of vacancies in the psychologist:

- 9.9% of teachers and 18.9% of students were satisfied with the school's education quality, ($p < 0.05$), Table 6. The average satisfaction rate with the timely filling of vacancies in the psychologist in terms of education quality was 14.4%. *The research groups were not satisfied,* Table 8.
- 5.5% of the teachers and 15.5% of students were satisfied with the career readiness of the apprentices, ($p > 0.05$), Table 6. The average satisfaction rate with the timely filling of vacancies in the psychologist in terms of the students' career readiness was 10.50%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with filling psychologist vacancies was 3.62/10. Students appeared more satisfied compared to teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The filling of administrative staff vacancies affects the degree of education quality rate, ($p < 0.001$) but does not affect the career readiness of trainees to practice the profession, ($p > 0.005$),* Table 6.

A2.3 Filling auxiliary staff vacancies

Concerning the filling of auxiliary staff vacancies, adult students showed a higher percentage of satisfaction, followed by pupils, graduates, and teachers. The average satisfaction rate was 45.98%. *The research groups were a little satisfied,* Table 3. Of all those groups who supported timely filling of support staff vacancies:

- 22.5% of teachers, 33.8% of pupils, 38.3% of graduates and 47.1% of adult students were satisfied with the school's education quality, ($p < 0.05$), Table 6. The average satisfaction rate with the timely filling of support staff vacancies in terms of education quality was 35.43%. *The research groups were a little satisfied,* Table 8.
- 11.8% of teachers, 27% of pupils, 31.7% of graduates and 38.7% of adult students were satisfied with the career readiness of apprentices, ($p > 0.05$), Table 6. The average satisfaction rate with the timely filling of support staff vacancies in terms of the students' career readiness was 27.3%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with filling auxiliary staff vacancies was 5.86/10. Adult students appeared more satisfied, followed by pupils, graduates and teachers. The difference in means was statistically significant ($p < 0.001$), Table 2. *The filling of vacancies of auxiliary staff affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3. Educational media

6. School Books

A3.1 Correctness of school books (without errors)

18.3% of the teachers supported the correctness of the textbooks. *Teachers were not satisfied,* Table 3. Of the teachers who supported the correctness of the school books:

- 14.4% were satisfied with the school's education quality, ($p < 0.001$), Table 6. Teachers *who supported the correctness of the school books in terms of education quality were not satisfied,* Table 8.
- 8.4% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers who supported the correctness of the school books in terms of students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the correctness of the school books was equal to 4.34/10, Table 2. *The correctness of the textbooks affects the degree of quality of education, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3.2 Suitability of school books (pedagogically appropriate)

20.9% of teachers supported the pedagogical suitability of textbooks. *Teachers were not satisfied,* Table 3.

Of the teachers who supported the pedagogical suitability of the school books:

- 16.5% were satisfied with the school's education quality, ($p < 0.001$), Table 6. *Teachers who supported the pedagogical suitability of the school books in terms of education quality were not satisfied,* Table 8.
- 9.9% were satisfied with the students' career readiness to practice the profession, ($p < 0.001$), Table 6. *Teachers who supported the pedagogical suitability of the school*books *in terms of the students' career readiness were not satisfied,* Table 8.

The average value of the teachers' satisfaction rate with the suitability of the textbooks was equal to 4.62/10. *The pedagogical suitability of the textbooks affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3.7 Correlation of manuals with the requirements of the profession

Regarding the correlation of textbooks with the requirements of the profession, adult students, graduates, and pupils, followed by teachers showed a higher percentage of satisfaction. The average satisfaction rate was 58.98%. *The research groups were satisfied* Table 3. Of all those groups who advocated the correlation of training manuals with the demands of the profession:

- 19.3% of teachers, 47.1% of pupils, 60.6% of graduates and 54.4% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate of correlating training manuals with the profession's demands in terms of education quality was 45.35%. *The research groups were a little satisfied,* Table 8.
- 14.5% of teachers, 38.8% of pupils, 43.9% of graduates and 50% of adult students were satisfied with the career readiness of apprentices to exercise their

profession, ($p < 0.001$), Table 6. The average satisfaction rate of correlating training manuals with the profession's demands in terms of students' career readiness was 45.35%. was 36.8%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the correlation of the textbooks with the requirements of the profession was equal to 6.83/10. Adult students, graduates and pupils were the most satisfied followed by teachers. The difference in mean scores was statistically significant ($p < 0.001$), Table 2. *The correlation of the manuals with the demands of the profession affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3.6 Understanding the language of books

Regarding the understanding of the books' language, graduates, adult students, pupils showed a higher percentage of satisfaction, followed by teachers. The average satisfaction rate was 57.68%. *The research groups were satisfied,* Table 3. Of all groups who advocated understanding the books' language:

- 14.4% of teachers, 47% of pupils, 66.7% of graduates and 45.3% of adult students were satisfied with the school's education quality, ($p < 0.05$), Table 6. The average satisfaction rate of understanding the books' language in terms of education quality was 43.35%. *The research groups were a little satisfied,* Table 8.
- 8.6% of teachers, 41.9% of pupils, 46.1% of graduates and 41% of adult students were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average satisfaction percentage of understanding the books' language in terms of the students' career readiness was 34.4%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the understanding of the books' language was equal to 6.80/10. Graduates, adult students and pupils were the most satisfied, followed by teachers. The difference in mean scores was statistically significant ($p < 0.001$), Table 2. *The understanding of the books' language affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

7. Educational and Supervisory Materials, Teaching Tools, ICT

A3.4 Use of auxiliary educational material of teachers

Of the use of teachers' auxiliary educational material, teachers, adult students, graduates showed a higher percentage of satisfaction followed by pupils. The average satisfaction rate was 68.63%. *The research groups were quite satisfied,* Table 3. Of all those groups who used their own auxiliary educational material:

55.8% of teachers, 37% of pupils, 56.1% of graduates and 48.8% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the use of auxiliary educational material in terms of education quality was 49.43%. *The research groups were a little satisfied,* Table 8.

- 32.5% of teachers, 31.3% of pupils, 40% of graduates and 45.6% of adult

students were satisfied with the career readiness of apprentices to practice the profession, ($p > 0.05$), Table 6. The average satisfaction rate with the use auxiliary educational material in terms of the students' readiness was 37.35%. *The research groups were a little satisfied,* Table 8.

The average value of the satisfaction rate with the use of the teachers' auxiliary educational material was equal to 7.18/10. Teachers and adult students appeared more satisfied followed by graduates and pupils. The difference in mean scores was statistically significant ($p < 0.001$), Table 2. *The use of the teachers' auxiliary educational material, affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3.5 Existence of appropriate educational media, ICT in the school

Regarding the existence of appropriate educational media, and ICT, a greater percentage of satisfaction was shown by graduates, teachers, and pupils followed by adult students. The average satisfaction rate was 51%. *The research groups were satisfied* Table 3. Of all those groups who supported the existence of appropriate ICT and educational media in the school:

- 39.3% of teachers, 38.4% of pupils, 52.2% of graduates and 31.7% of adult students were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the existence of appropriate educational media in the school in terms of the education quality was 40.4%. *The research groups were a little satisfied,* Table 8.
- 22.3% of teachers, 30.5% of pupils, 38.3% of graduates and 26.2% of adult students were satisfied with the career readiness of apprentices, ($p < 0.05$), Table 6. The average percentage of satisfaction with the existence of appropriate educational media in the school in terms of the students' readiness was 29.33%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction degree with the existence of appropriate ICT and teaching tools in the school was equal to 6.14/10. Graduates, teachers and pupils appeared more satisfied followed by adult students. The difference in mean scores was statistically significant ($p < 0.001$), Table 2. *The existence of appropriate ICT and teaching tools in the school affects the degree of education quality rate, ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

A3.3 Usefulness of educational materials of the Ministry of Education, (Photodentro, Aesop, etc.)

Regarding the usefulness of Ministry of Education educational material, the highest percentage of satisfaction was shown by graduates, followed by students and teachers. The average satisfaction rate was 32.6%. *The research groups were not satisfied,* Table 3. Of all those groups who supported the usefulness of Ministry of Education educational materials:

- 20.4% of teachers, 23.6% of students and 38.9% of graduates were satisfied with the school's education quality, ($p < 0.001$), Table 6. The average satisfaction rate with the usefulness of educational materials of the Ministry of Education in terms of education quality was 27.63%. *The research groups were not*

satisfied, Table 8.

- 13.1% of teachers, 19% of students and 27.2% of graduates were satisfied with the career readiness of apprentices to practice the profession, ($p < 0.05$), Table 6. The average percentage of satisfaction with the usefulness of educational materials of the Ministry of Education in terms of the students' career readiness was 19.77%. *The research groups were not satisfied,* Table 8.

The average value of the satisfaction rate with the usefulness of the educational material of the Ministry of Education was equal to 5.07/10. Graduates appeared more satisfied followed by teachers and students. The difference in mean score0s was statistically significant ($p < 0.001$), Table 2. *The use of the educational material of the Ministry of Education affects the degree of education quality rate ($p < 0.001$) and the career readiness of the trainees, ($p < 0.001$),* Table 6.

4. Conclusions

The research leverages a comprehensive data collection strategy across various participant groups, enhancing the study's robustness and potential generalizability. Goal is to increase the satisfaction index of all quality variables to a higher level. The participants were quite satisfied with the "inputs" of the education system. When the variables were combined via Chi-square with the variable related to the quality of education, the research groups were satisfied. When the variables were combined with the variable related to the career readiness of apprentices to practice the profession, the research groups were less satisfied. Everyone generally expresses their rate of satisfaction. When quality intervenes, the rate of satisfaction degree is stricter. When their personal benefit is involved, then the rate of satisfaction degree is very strict. Almost all variables affect the quality of education and affect the career readiness of pupils and adult students to practice the profession.

Studying only one aspect of education system such as inputs, processes or outputs is not beneficial. Future research that examines the processes and especially the outputs of the education system in Greece is a matter of utmost importance in order to make comparisons and meaningful generalizations that will contribute to the improvement of the quality of education.

5. Discussion

A few decades ago, education quality was the one that aimed at acquiring supplies for young people to face the increased demands of the time. Today, education quality is the one that constantly evolves, upgrades its role, improves its image, integrates and socializes students, connects education with the labor market, carries out actions, participates in mobility programs, organizes programs, etc. with the aim of improving the individual's personality.

For several years, informal and occasional efforts have been made by the Ministry of Education to improve the quality of education. However, these efforts were fruitless, because they lacked methodicality and know-how. From 2021 onwards, the foundations were officially laid for improving the quality of education through

a law concerning the evaluation of educational units (Government Gazette, 4189/B/2021). Nevertheless, the improvement even today is one-sided, because targeted utilization and proper management of quality exists when standards are followed and statistical methods are applied with appropriate techniques for analyzing the data collected (Georgopoulos, 2007). So far, the Ministry of Education only refers to axes, indicators and quality criteria. In addition, according to Deming, the administration (of the respective school) and the top management staff must have a clear knowledge of statistical tools (Logothetis, 1992) and quality principles, something that is not applied in Greek territory schools.

The educational community must understand that growth and improvement is not a process to overcome short-term crises. It requires long-term systemic organization and systematic work. Therefore, the management of quality in education should not be considered as a process of consuming the participants, but as a process of interaction between teachers, students and society. If teachers do not accept evaluation, so that it becomes part of their culture (Fotopoulos & Zagos, 2016), nothing is going to improve.

The present study highlighted key issues and current quality problems in education, that need to be addressed immediately and which must be taken into account with the procedures and outputs of the quality system to carry out a more extensive assessment of the quality of education in Greece.

Author's Statement

I hereby declare that academic ethics are observed, supporting the rigorous style of study.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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