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Vocational education and candidate performance analyis

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Abstract

Vocational education can create a reliable environment for both employees and employers. It allows companies to target niche markets, provide valuable content and

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networking opportunities. However, there is still a need to increase awareness and popularization of vocational education in industries. Vocational education is carried out by authorized institutions and is an activity that requires considerable cost and time. In this study, the factors affecting the exam performance of the candidates participating in the Vocational Qualification Certificate exams are examined. The research population consists of candidates who participated in the examination of the Bridge Crane Operator profession. Random sampling method was preferred in the selection of exams. 38-question survey was administered to 84 participants who took the exams. This analysis aims to increase awareness of the Professional Competence Certificate and to determine the factors affecting the exam performance of the candidates participating in the exam. By determining the factors, it is aimed to reduce the costs of repeating the exam after the failed exam and to prevent loss of time for both the institution conducting the exam and the candidate taking the exam. ANOVA analysis was used to measure the level of significance between demographic data and factors affecting exam performance.

Subject Classification: *121, 123.*

Keywords: *Anova analysis, Survey, Vocational education.*

1. Introduction

The basis of countries' "unemployment" problems lies in the skill-employment mismatch. One of the most important solutions to this structural problem is to adapt the skills of the workforce to global and technological developments, update themselves regularly and organize the workforce according to labor demand. Hence, a university diploma is not the "only" sufficient official document to prove that one is competent and has the necessary skills in a particular field. Various certification programs and certificates of achievement given after vocational training open doors to new professions, increase vertical and horizontal mobility, provide positive discrimination in wages and have a positive impact on promotion processes. Nowadays, where digitalization has accelerated considerably, emphasis is placed all over the world on the renewal of skills in line with these developments and the concept of lifelong learning in order to "survive" in the digital age and gain a place in the global competitive environment (Gowda at all, 2023) [7][8]. Vocational qualification certificates are official documents that verify a person's knowledge, skills and abilities required to practice a particular profession. Their importance can be evaluated from several aspects(Aybar at al, 2023) [1]. Quality and Reliability is the first effect. Professional qualification documents verify how successfully a person can perform a particular profession. These documents show that the person's professional

knowledge and skills are at a certain standard. Therefore, it is an important tool for employers to evaluate the qualifications of candidates. Establishing Professional Standards: Professional qualifications help determine the requirements and standards of a profession. These documents define the minimum levels of skills and knowledge required to practice a particular profession. These standards help establish and guide professional training and development programs. Some professional qualification documents provide international recognition and validity. This proves one's ability to practice a particular profession not only in one's own country but also in the international arena. Especially in the globalizing labor market, the demand for such documents is increasing (Gowda at all, 2023) [7][8]. Professional credentials can help one advance in one's career and access better job opportunities. Documenting a person's abilities and knowledge in a particular profession will attract the attention of employers and potential employers and can help the person stand out among their peers(Bal at all, 2011, Durgut at all, 2020) [2][5]. Vocational qualifications are also a part of job-oriented education and continuing education, which are on the agenda all over the world. These documents provide a person with a clear roadmap of what they need to achieve in a particular profession, while providing access to ongoing learning and training opportunities to maintain and develop professional skills.

Additionally vocational certificates can enhance marketing efforts in several ways for companies (Campbel, 1997) [4]. Having professional certifications demonstrates a level of expertise and proficiency in a particular field. This provides credibility and can increase the credibility of individuals or businesses that offer services or products related to that field. Customers are more likely to trust and engage with businesses that employ certified professionals. In competitive markets, professional certifications can differentiate not only individuals but also businesses from their competitors. Marketing activities can highlight these certifications and showcase the specialized skills and knowledge that set them apart. Professional certifications allow businesses to penetrate niche markets more effectively(Kadyan at all, 2023)[9]. By tailoring their marketing messages to the specific industries or sectors to which certification relates, businesses can attract clients or customers who prioritize expertise and qualifications in those areas.

Content marketing strategies can benefit from professional expertise when creating valuable, informative content for target audiences (Kumari at all, 2023) [10][11]. This content may include blog posts, videos, webinars, or white papers that showcase the knowledge and skills gained through

certification. Professional certifications often come with membership in professional organizations or networks. Leveraging these connections can enhance marketing efforts through networking events, industry conferences or collaborative partnerships. People who establish relationships within the professional community may become open to collaborations and new business opportunities (Fisher, 1990) [6]. Satisfied customers are also more likely to recommend businesses with professional certifications to others. Thus, it can be a powerful tool to attract new clients or customers. Businesses can encourage and encourage satisfied customers to share their experiences and recommendations within their networks. Professional certifications can also bring industry recognition or awards. Awards and recognition serve as third-party verification of the quality of products or services, increasing brand reputation and attracting new customers. This will mean increasing marketing success.

Businesses that invest in employee training and certification place emphasis on professional development and growth. It can be said that employees who earn professional certificates feel valued and motivated. This leads to higher job satisfaction and productivity. These engaged employees can become brand advocates by promoting the business through their networks and social media channels. Integrating these certifications into marketing strategies can strengthen brand reputation, attract new customers and accelerate business growth (Kumari at all, 2023) [10][11].

In this paper Vocational Qualification Certificate exams are carried out as theoretical, interview and performance. Many factors affect the performance of candidates in these exams. The aim of this study is to reveal the factors affecting the exam performance of the candidates who take the Vocational Qualification Certificate exam in the Authorized Certification Bodies that provide measurement, evaluation and certification services by the Vocational Qualifications Authority. In recent years, the number of certificates issued by the VQA has increased with the incentives of the government. However, it is still not at the desired level. It is thought that this study will increase the awareness of Vocational Qualification Certificate. There are 3 exam rights in Vocational Qualification Certificate exams. However, the second and third exams will increase the costs of the exam and cause a loss of time for both the organization conducting the exam and the candidate taking the exam. With this study, it is thought that suggestions can be made to reduce the costs and time loss of the organizations conducting the exam. A field study was conducted to investigate the factors affecting the exam performance of candidates

taking the Vocational Qualification Certificate exam. In the field research, 84 participants were reached between April 1-30, 2021 and a 38-question survey consisting of three questionnaires was applied to the participants. The survey data were analyzed with statistical program. ANOVA analysis was used for the significance level between some demographic data and factors affecting exam performance. In the literature, it is seen that studies on professional qualification certification have become widespread with globalization. Certification is a process that formally verifies that students have achieved a specific professional qualification. This process ensures that employers and other interested parties in the labor market have confidence in the abilities of students. It also ensures that certification provides people with opportunities to advance their careers and increases their chances of finding employment. However, various evaluation methods and certification processes used in vocational education have shortcomings and are still open to improvement. These methods include practices such as performance evaluation, written exams, practical skill tests and internships. The advantages, disadvantages and requirements of each method should be determined precisely. Finally, the study provides recommendations for improving evaluation and certification processes in vocational education. These suggestions include diversifying evaluation methods, providing feedback to students, and aligning certification processes with international standards. The pandemic of 2020 and 2021 has taught us all the importance of systems for quickly building the knowledge and skills of workers to cope with the medical, social and economic situation towards recovery (Relly, 2022) [25].

While certifications contribute to individuals' self-esteem, they also increase motivation to acquire new knowledge. Among the mentioned benefits is that individuals have the chance to get to know their own skills closely, both during the exam preparation and exam processes, and to be able to identify their strengths/weaknesses. In addition to all these individual benefits, it provides employment opportunities to individuals who have not achieved sufficient success in education and have not been integrated into the education system, and their participation in the economy is encouraged (ILO, 2018) [26]. Educational strategies are discussed in terms of quality (Barabasch, A. 2017) [3].

New technologies for the sustainability of education are mentioned in the literature. For example, their studies emphasize that augmented reality technology can help students improve their practical skills by using features such as simulations, visual guidance and real-time feedback. The study recommends the use of augmented reality technology to improve

sustainable educational practices in vocational qualification courses and develop students' skills more effectively. This may contribute to future training programs being more effective and sustainable (Lee at all, 2021) [12]. The outcomes of recognition of prior learning around the world vary, such as documentation, portfolio, skill passport and certificate. For example, while there is a certification similar to the Vocational Competence Certificate in Slovenia, it is seen that in countries such as France and the Netherlands, the recognition process of prior learning does not always provide a title or certification to the candidate being evaluated (France, 2017, ILO, 2018). [27] [26]. In the Flemish Region of Belgium, recognition of prior learning was developed with the aim of matching the supply and demand of qualifications needed in job markets. The certificate, also known as the professional skill qualification or experience certificate, is accepted by employers as it is an official document of the state (Werquin, 2010 OECD, 2022) [24][23].

In his report, Malkus Nat (2019) examined the development of vocational education from 1982 to 2013, and examined the courses taken by high school graduates in the USA within the scope of 30 years of vocational qualification (Nat, 2019) [22]. It shows how the courses taken have changed in general and in terms of concentration during this period. He used test scores to show changes in their relative academic levels. Significant declines in grades were seen in this thirty-year study. Different patterns underlie this overall decline: Some training participants' career concentrations are expanding, giving participants significantly higher test scores, while concentrations in some areas traditionally considered the heart of vocational education are slowly declining, showing no change in participants' low relative test scores. It emphasizes that the scores and certificate fields received should be revised according to the needs and technology of the age. According to The World Economic Forum, the competitiveness of countries is defined as "the set of institutions, policies and factors that determine the productivity level of a country". These policies are implemented as vocational training and prior learning. The VAE system called "Recognition of Experience" has been in effect in France since 2002. In order to prove their competence in the profession they have chosen, individuals must document at least one year of experience in that profession and pass various interviews and exams.

In France, recognition of prior learning is seen as a right, therefore citizens are given stronger state support for the certification process compared to other countries and encourage certification. However, the weakness of the system is that the process leading to certification is long

and requires a certain level of verbal skills from applicants in terms of completed documents, forms, requested letters and formalities. Since this situation is seen as a factor that makes it difficult for adults with low level qualifications and who have not been successful in formal education to obtain documents, changes in the procedure have recently been planned. (France 2017) [27]. The Netherlands recognizes individuals' prior learning through two separate tracks based on their career and educational goals. While the career track helps individuals in their professional advancement, the training track can shorten the education period that the individual will receive by providing exemption from courses to be taken at universities or vocational schools through recognition of previous learning. While this reduces the duration of education, it also helps to make better use of human resources, time and money, in short, resources. With the reform, the Netherlands, which used to only provide an exam and an "experience certificate" around the exam, has diversified the practice with new measurement methods and procedures. As mentioned on the previous pages, there are practices in Europe where skills are recorded through online portals. The Netherlands allows citizens to share their work, skills and certificates with e-portfolio. It allows recording. In addition, before taking the exam for certification, undergoes an entrance screening. These studies emphasize to us the importance of professional certification in the literature. However, no study has been found that measures the efficiency of exams and exam success factors. With the analysis presented in this study, the aim of creating new exam strategies for professional certification exams, which are planned to be disseminated with limited resources and planned as a country policy, has become a source of motivation and can serve as an example for all implementing countries.

2. Materials and Methods

Authorized certification centers carry out professional qualification exams in accordance with the "Application Guide for Theoretical and Performance-Based Exams" and "Camera Recording Guide for Theoretical and Performance-Based Exams" published by the country's professional qualification institution. Theoretical, interview and performance exams are recorded without interruption from the beginning to the end of the exam. Vocational Certification may request video recordings of each exam, both in its planned and unplanned inspections, and may request VC to take corrective/preventive action regarding the exams as a result of its inspections. Therefore, VCs must keep exam records for one year from the

date of the exam. Exams that have completed one year must be destroyed as specified in the quality system.

While preparing the question bank for the units containing the theoretical exam of each qualification, there must be at least 3 questions from the headings in the "Information Statements" section in the unit. This is called the "tricky" rule. Since the candidate has the right to take 3 exams in a year, there should be at least three questions from each information statement to avoid the same questions being asked in the exams he/she takes. The duration of the exam and the number of questions are stated in the qualification. The questions are prepared as a multiple choice test and are expressed as "T1". Each question has equal points and the evaluation is made out of 100 points. Although it varies in the units of each qualification, it is generally necessary to score at least 60 points to be successful in the theoretical exam. The interview exam is defined as a structured exam and is referred to as "T2". The interview exam, like the theoretical exam, is recorded on camera from the beginning to the end. The interview exam takes place in written form. Questions and answers are given through a structured scenario. While preparing the questions of the interview exam, the information statements in the qualification unit are used. As in the theory exam, the "three times" rule applies to questions. The candidate taking the exam is asked to choose more than one correct answer and no points are deducted for questions answered incorrectly. Evaluation is made out of 100 points and the candidate must score at least 60 points to be successful. Interview exams are held only for some qualifications. Generally, theoretical and performance exams are held in qualifications. The performance exam is referred to as "P1" and represents a performance exam that includes the phrases "Skills and Competencies". A performance scenario must be prepared for the performance exam. As in other types of exams, the "three times" rule is followed here too. There are critical steps in the performance exam. These are indicated with a "*" sign in the "Skills and Competencies" section in the qualification unit. Although the candidate's total score enables him to pass the exam, if he has not completed one of the critical steps, the candidate's exam is considered unsuccessful. The exam is evaluated out of 100 points. In order to pass the exam, the candidate must complete all critical steps and score at least 80 points. The exam will be terminated if the candidate exhibits any behavior that would endanger his or her own or other people's life

safety. A survey was conducted for the candidates taking part in this process.(MYKb,c,d,e, f,g,h), 2023 [14][15][16][17][18][19][20][21].

The survey method can offer several advantages when assessing vocational certificate candidates: Efficiency: Surveys can efficiently collect data from many candidates simultaneously(Mir at all, 2023) [13]. This is particularly useful when there are numerous candidates applying for vocational certification. Also, surveys allow for standardized data collection, ensuring that all candidates are evaluated based on the same criteria and questions. This helps maintain fairness and consistency in the evaluation process. Anonymity: Surveys can be conducted anonymously, which encourages candidates to provide honest responses without fear of judgment or bias. This can lead to more accurate self-assessments and feedback. Surveys can be administered in various formats, including online, paper-based, or in-person interviews. This flexibility allows candidates to participate in the evaluation process at their convenience, increasing participation rates. Cost-effectiveness: Compared to other assessment methods such as interviews or performance evaluations, surveys are often more cost-effective to administer, especially when dealing with a large number of candidates. Surveys generate quantitative data, which can be easily analysed and compared across candidates. This allows for objective evaluation and decision-making based on measurable criteria. It can be designed to collect feedback from candidates about their learning experiences, training needs, and areas for improvement. This information can be valuable for program improvement and curriculum development. Surveys can be scaled up or down depending on the number of candidates being evaluated. Whether assessing a small group of candidates or a large cohort, surveys can accommodate varying sample sizes effectively. It can be conducted remotely, making them accessible to candidates regardless of their location or physical mobility. This inclusivity ensures that all candidates have an equal opportunity to participate in the evaluation process. Overall, the survey method offers a systematic, efficient, and standardized approach to assessing vocational certificate candidates, allowing for objective evaluation, feedback collection, and data-driven decision-making.

A survey was conducted in line with the quantitative method followed in the study. In this section, the factors affecting the performance of the candidates taking the Vocational Qualification Certificate exams

will be tried to be revealed. The research population of the study consists of candidates who took the Bridge Crane Operator (Level 3) exam held in Gebze between 1-30 April 2021 by an Authorized Certification Body authorized to conduct exams from 30 professions. The sample consists of 84 volunteer participants, 1 of whom is female and 83 of whom are male. Participants were selected through random sampling.

A questionnaire consisting of 38 questions was applied to the participants. There are three question forms in the survey application. In the first question form, the participants were asked demographic characteristics such as gender, age, education, employment status and questions about the exam they took. In the second question form, questions about the experience of the exam they took were asked. In the last questionnaire, personal factors were included and they were asked to select the factors affecting their exam performance. The examiners were asked to administer the questionnaire to the participants who had finished the exam. In this way, it was envisaged that the participants would give more appropriate answers to the questions about the exam experience. The collected data were evaluated. The questions in the first questionnaire were scored as 1, 2, 3...depending on their order and data entry was made. Questions left blank were scored as 0 and data entry was made. The questions in the second and third questionnaires were asked to choose one of the following answers: “very low”, “low”, “medium”, “high” and “very high”. The options to be selected were scored between 1 and 5 and data entry was made into the program. “Very low” option was entered as 1 point, “low” as 2 points, “medium” as 3 points, “high” as 4 points and “very high” as 5 points. Demographic and exam-related data were collected. ANOVA analysis was used to measure the level of significance between demographic data and factors affecting exam performance.

3. Results

Eighty-four voluntary participants participated in the study. Some socio-demographic data of the participants are given in Table 1. When the table is analyzed based on gender, it is seen that men are in the majority. It is seen that people who are younger and at the beginning of their working life participate in Vocational Qualification Certificate exams more than other age groups. In terms of educational status, it is seen that high school graduates participate in the exams more than graduates of other education

types to validate and certify their work. As the number of years of experience increases, the number of test takers has decreased. The reason for this may be that very experienced employees do not need any certification and think that their own experience and knowledge are sufficient. Only 2 of the respondents are not working. The fact that people without Vocational Qualification Certificate cannot be employed in hazardous and very hazardous occupations has made it compulsory for employers to certify their employees.

Table 1

Socio-Demographic Data of the Research Participants

Socio-Demographic Characteristics		**n**
Gender	Woman	1
	Male	83
*Age	20-30	35
	31-40	30
	41 and above	15
**Education Status	Primary School	1
	Middle School	1
	High School	50
	Associate Degree	30
	License	1
***Year of Experience	1-10	46
	11-20	21
	21 and above	11
Employment Status	Working	82
	Not working	2

n: Number of Participants
*4 people did not select this option.
** 1 person did not select this option.
*** 6 people did not select this option.

Before using ANOVA analysis, the average of the answers given to the questions in the second and third questionnaires were taken. Then, it was questioned whether there was a significant relationship between the answers given and education level and experience. Firstly, ANOVA analysis was performed for the significance of educational level and exam

experience and personal factors affecting exam performance. The results of the analysis are shown in Table 2, Table 3 and Table 4 As a result of the analysis; since the p value (sig.) of the exam experience and personal factors is greater than 0.05, there is no significant difference between the educational status and the factors affecting the exam performance. According to the homogeneity test, since the sig. value of the exam experience is less than 0.05, it is not homogeneously distributed. However, according to the homogeneity test for personal factors, the sig. value of personal factors is greater than 0.05, so they are homogeneously distributed.

Table 2

ANOVA analysis showing the significance of education level and exam experience and personal factors(Descriptives)

	Education status	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Exam_ Experience_ AVG	primary school	1	4.93	NaN	NaN	NaN	NaN	4.93	4.93
	middle school	1	3.80	NaN	NaN	NaN	NaN	3.80	3.80
	high school	50	3.89	.64	.09	3.71	4.07	2.07	5.00
	associate degree	30	3.85	.36	.07	3.72	3.99	3.00	4.73
	License	1	4.07	NaN	NaN	NaN	NaN	4.07	4.07
	Total	83	3.89	.55	.06	3.77	4.01	2.07	5.00
Personal_ Factors_AVG	primary school	1	1.00	NaN	NaN	NaN	NaN	1.00	1.00
	middle school	1	3.00	NaN	NaN	NaN	NaN	3.00	3.00
	high school	50	2.15	.88	.12	1.90	2.40	1.00	5.00

Contd...

	associate degree	30	2.17	.88	.16	1.84	2.50	1.00	4.40
	License	1	1.70	NaN	NaN	NaN	NaN	1.70	1.70
	Total	83	2.15	.87	.10	1.96	2.34	1.00	5.00

Sources: Table compiled by the authors at January 2024

Table 3

Anova results

		Sum Of Squares	df	Mean Square	F	Sig.
Exam_Experience_AVG	Between Groups	1.17	4	.29	.97	.429
	Within Groups	23.61	78	.30		
	Total	24.79	82			
Personal_Factors_AVG	Between Groups	2.26	4	.57	.74	.570
	Within Groups	59.89	78	.77		
	Total	62.15	82			

Sources: Table compiled by the authors at January 2024

Table 4

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Exam_Experience_AVG	2.87	4	78	.028
Personal_Factors_AVG	1.07	4	78	.375

Sources: Table compiled by the authors at January 2024

The results of the ANOVA analysis for the significance of years of experience and exam experience and personal factors affecting exam performance are shown in Table 5,6 and 7. In the homogeneity test, since the sig. value of the exam experience and personal factors was greater than 0.05, both were homogeneously distributed. According to the results of the ANOVA analysis, since the p value (sig.) of the exam experience and personal factors is greater than 0.05; there is no significant difference between years of experience and factors affecting exam performance.

Table 5

ANOVA analysis showing the significance of years of experience and exam experience and personal factors(Descriptives)

	Year of Experience	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Exam_ Experience_AVG	1-10	46	3.86	.60	.09	3.69	4.04	2.07	5.00
	11-20	21	3.88	.45	.10	3.68	4.09	3.00	4.80
	21 and above	11	4.01	.59	.18	3.61	4.40	2.80	4.93
	Total	78	3.89	.55	.06	3.76	4.01	2.07	5.00
Personal_ Factors_AVG	1-10	46	2.08	.79	.12	1.84	2.31	1.00	5.00
	11-20	21	2.37	1.04	.23	1.90	2.85	1.00	4.80
	21 and above	11	2.04	.80	.24	1.50	2.58	1.00	3.30
	Total	78	2.15	.86	.10	1.96	2.35	1.00	5.00

Sources: Table compiled by the authors at January 2024

Table 6

Test of Homogeneity of Variances

	Levene Statistic	**df1**	**df2**	**Sig.**
Exam_Experience_AVG	.82	2	75	.443
Personal_Factors_AVG	1.60	2	75	.210

Sources: Table compiled by the authors at January 2024

Table 7

Anova Results

		Sum Of Squares	**df**	**Mean Square**	**F**	**Sig.**
Exam_Experience_ AVG	Between Groups	.18	2	.09	.29	.750

Contd...

	Within Groups	23.52	75	.31		
	Total	23.70	77			
Personal_Factors_AVG	Between Groups	1.44	2	.72	.96	.386
	Within Groups	55.88	75	.75		
	Total	57.32	77			

Sources: Table compiled by the authors at January 2024

The participants were asked to select the degree of influence of personal factors affecting exam performance. Table 8. shows these data. When the table is analyzed, it is seen that "reading difficulties", "family problems", "illness", "lack of experience in taking the exam" and "fear of losing a job" do not affect exam performance. Considering the high and very high degree of influence, it was seen that "excitement" and "stress" factors affected the exam performance more.

Table 8

Distribution of personal factors affecting exam performance according to the number of participants

Personal Factors Affecting Exam	Degree of impact on examination performance				
	Very Low	Low	Middle	High	Very High
Failure Anxiety	15	24	32	7	6
Lack of motivation	15	23	36	7	3
Distraction	20	24	29	6	4
Stress	21	26	22	10	5
Excitement	14	25	29	12	4
Disease Status	47	19	9	6	3
Familiy problems	54	12	12	3	3
Reading Difficulty	58	11	12	2	1
Lack of experience in taking exam	46	13	14	6	5
Fear of Loosing your job	42	13	16	3	6

Sources: Table compiled by the authors at January 2024

4. Discussion

The recognition of Vocational Education is increasing day by day. This issue will have great impacts, from creating trained manpower in specific areas to increasing the marketing power of companies. Although we have passed the certification system in vocational and technical education in our country very late compared to Europe, VQA wants to close this gap rapidly. Nearly one million Vocational Qualification Certificates have been issued by VQA so far. In order to produce quality products in the production sector, qualified manpower is needed. In economic life, it is as important to have a profession as it is to be able to show that you are competent in that profession and to make it visible with reliable documents. VQA has introduced the obligation to obtain certificates for many professions to prevent occupational accidents caused by human beings.

5. Conclusions

In line with the purpose of this study, the factors affecting the exam performance of the candidates taking the Vocational Qualification Certificate exam were examined and "stress" and "excitement" were determined as the two most important reasons. For the candidates to be successful in their first exam and not to fail the second exam, studies can be carried out to reduce the stress and excitement of the examinees. In this way, ICBs can reduce the cost of the second exam and prevent loss of time. Thanks to such applications, the density of skills in the workforce of all countries can be seen. It can be more easily determined in which sectors countries have skills shortages, and skill policies can be regulated on this axis. In addition, making their skills visible through certificates, passports and various documentation tools facilitates the participation of various disadvantaged groups such as immigrants, workers and housewives in business life; This narrows the scale of inequality between social classes and indirectly helps create social unity. The fact that vocational qualification certificates are accessible to everyone is considered positive in terms of the integration of disadvantaged groups into society who have not been qualified through formal education. Survey results can be used to understand the needs in a particular profession or industry by determining the skill, knowledge and experience levels of participants. This can be an important source of feedback for developing or improving training programs and certification processes. It can be used to evaluate the

effectiveness of existing training programs or certification processes. Areas for improvement can be identified by examining factors such as participants' satisfaction level, learning outcomes, and difficulties they encounter in practice. Survey results can be used to improve the quality of professional training and certification processes. Feedback can support measures such as updating educational materials, improving teaching methods or revising assessment processes. Respondent survey results can be used to highlight the value and effectiveness of training programs or certification in a particular profession or industry. Positive feedback can be used in marketing and promotional activities to attract potential participants or persuade employers. Based on participants' expectations and needs, it may be possible to develop more effective and inclusive policies to improve vocational certification training. Finally survey results can contribute to research in the field of vocational training and certification. Participants' opinions and experiences can increase knowledge in this field and be an important resource for future research. Authors should discuss the results and how they can be interpreted from the perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted.his section is not mandatory but can be added to the manuscript if the discussion is unusually long or complex.

Author Contributions

"Conceptualization, Canan Öztürk. ; methodology, Canan Öztürk and Selçuk Denizhan.; software, Canan Öztürk.; validation, Canan Öztürk. Selçuk Denizhan and Berrin Denizhan.; formal analysis, Selçuk Denizhan and Berrin Denizhan.; investigation, Canan Öztürk and Selçuk Denizhan.; resources, Canan Öztürk and Selçuk Denizhan.; data curation, Canan Öztürk and Selçuk Denizhan.; writing—original draft preparation, Berrin Denizhan and Selçuk Denizhan.; writing—review and editing, Berrin Denizhan.; visualization, Canan Öztürk and Selçuk Denizhan.; supervision, Berrin Denizhan.

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We encourage all authors of articles published in MDPI journals to share their research data. In this section, please provide details regarding where data supporting reported results can be found, including links to publicly archived datasets analyzed or generated during the study. Where no new data were created, or where data is unavailable due to privacy or ethical restrictions, a statement is still required. Suggested Data Availability Statements are available in section "MDPI Research Data Policies" at https://www.mdpi.com/ethics.

Conflicts of Interest

"The authors declare no conflicts of interest."

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