



The Impact Of Pre-Vocational Teachers' Academic Qualifications On Students' Achievement In The Bani Obeid Educational Directorate

Dr. Mohammed Soliman Khrasat^{1*}, Dr. Sameer Aowad Kassab Shdaifat², Dr. Tariq Yousef Mahmoud Jawarneh³, Dr. Haitham Mustafa Eyadat⁴, Dr. Maha Ahmad Salem Shdefat⁵

^{1*}Al-Balqa Applied University - Al-Huson University College - The Department of Applied Sciences

²(Al- Balqa' Applied University (BAU) / Al – Huson Collage) Head Of The Vocational Education Department, Assistant professor

³Department of Curricula and Methods of Instruction Faculty of Educational Sciences / Yarmouk University

⁴Al-Balqa Applied University - Al-Huson University College - The Department of Applied Sciences

⁵PhD in Philosophy in Specific Education (Educational and Psychological Sciences, Curricula and Methods of Teaching Home Economics

Citation: Dr. Mohammed Soliman Khrasat, et al. (2024), The Impact Of Pre-Vocational Teachers' Academic Qualifications On Students' Achievement In The Bani Obeid Educational Directorate Prepared By, *Educational Administration: Theory and Practice*, 30(6), 3723-3730, Doi: 10.53555/kuey.v30i6.2646

ARTICLEIO

ABSTRACT

The study aimed investigated the effect of the academic qualification vocational education for the vocational education (VE) of vocational education teachers on achievement in Bani E'baid district education A sample of (100) teachers of vocational education on achievement in Bani E'baid district education.. A survey was used. It consists of two main parts. The first one targets demographic data (i.e. gender, and experience). The second one targets the study's dimensions. Those dimensions are: Traits & personality, rational approach and interpersonal & social factors. The study concluded that there is an effect for the vocational education of VE teachers on achievement in Bani E'baid district education. This effect is moderate. After conducting an analysis, a set of results were reached. For instance, there isn't any significant differences between attitudes which could be attributed to the gender. However, there are such differences which could be attributed to experience. The study recommends embedding a set of concepts which are related to entrepreneurship and creativity in VE curricula. That shall contribute to the promotion of professional creativity among students in numerous schools

Keywords: Academic Qualification, VE, Jordan, teachers, Bani E'baid
Introduction:

Introduction

Technical and vocational education has special significance in the contemporary educational system. Through offering such education, contemporary society is able to develop its human resources in accordance with its demands and needs in the form of intensive programs for workforce planning. These programs are - usually - part of comprehensive development programs that cannot be overlooked at all, but the rest of the other development programs are based on them. As long as the educational system is viewed as an integrated whole of interacting parts and elements that each influence and are affected by the other, history, politics, and administration - all of that - are elements of this educational system (technical, vocational), whenever it is possible to increase its efficiency in terms of its approach, goals, application, and evaluation. (Mujiarto, 2020). Vocational education (VE) is the education that is provided in the aim of providing the society with skilled workers (Ariyani et al., 2021). It plays a major role in improving the competitiveness of organizations in society through providing them with specialized and well-qualified labor force. It contributes to raising the productivity levels of organizations in society, because having well-qualified labor force contributes to saving time and effort and deliver products and services within less duration of time. It constitutes to fostering economic growth, and sustainable development in society, because having qualified labor force contributes to coming up with new products and services which meet the demands of international markets. That shall enable countries to increase their GDP (Milmeister et al., 2022).

It plays a crucial role in qualifying the workforce to deal with modern technologies. It enables workforce to keep up with the rapid changes. It allows them to meet the demands of the labor market's needs through developing their skills. Hence, major reform must be made to the field of VE, especially the VE in secondary schools. Technical and vocational education, bridging it with higher education, linking it to the needs of the

labor market, and ensuring its responsiveness to scientific and cultural changes, social transformations, and emerging economic conditions.(Hammud,2018).

Vocational education: that formal education that involves educational preparation and behavioral guidance. It provides students with skills and abilities to qualify them as skilled workers. It enables them to carry out the tasks assigned to them by contributing to collective and individual production. It aims to provide students with technical skills (through providing graduates of technical education institutes with the required skills) (Al-Labadi, 2018).

Education, in its simple definition, is preparing a person in a way that qualifies him for a life in which he is happy and serves his nation and humanity as a whole. Since education occupies this important place, there must be educational institutions that carry out this task, starting with the family and ending with educational institutions. There is no doubt that this education has different means and methods used by our institutions. Educational education in preparing the informed and properly qualified generation.(Mohammed, 2016).

As it is known, the teacher's main job is to help the learner acquire the academic and social behaviors that prepare him to be a productive and happy citizen in his society, but the teacher may find himself forced to deal with many unacceptable behaviors on the part of the learners, which limits their ability to learn, such as These unacceptable behaviors must be eliminated or limited, meaning that the teacher does everything he can to ensure that the educational process proceeds correctly, and if he finds that positive measures are not a solution to these behaviors, he must search for a procedure that effectively addresses these problems, and the punishment is often It is that procedure. (Mehmet,2015).

The Study's Problem

The curricula of VE courses play a very crucial role in the development of students' intellect in schools and promoting creativity among them. Students in all countries are in need for improving their creative abilities, especially the abilities that enable them to practice crafts. They must develop their skills in a manner that allows them to practice crafts later on and meet the demands of the labor market.

Several articles carried out in Jordan –e.g. an article by ESCWA (2017) – suggest that school curricula include few concepts related to creativity and professional work. They suggest that school curricula include few concepts related to crafts, entrepreneurship and creativity. They add that school curricula don't include whole lessons about those concepts.

There is a significant challenge hindering the promotion of creativity among school students. This challenge is represented in their subject-dominated nature. Creativity spans all subject areas. It's not limited to the 'arts. There are inherent conflicts in attempting for ensuring the assessment of the cross-curricular concepts (Lucas & Spencer, 2013).

Therefore, the problem of the study is to answer the following main question: What is the effect of the vocational education of vocational education teachers on achievement in Bani E'baid district education?

Objectives and Questions

The study aimed to reveal effect of the vocational education of vocational education teachers on achievement in Bani E'baid district education. To achieve this goal, the two questions of the study will be answered:

The First Question:

What is the effect of the vocational education of VE teachers on achievement in Bani E'baid district education?

The Second Question:

Is there any significant difference between the respondents' attitudes which can be attributed to experience or gender?

Significance of the Study:

This article can be classified as a significance due to the points mentioned below:

- It's important to identify the effect of the VE of vocational education teachers on achievement in Bani E'baid district education.
- The results enable school principals and VE teachers to promote creativity among students in various academic levels.
- This article provides the reader with recommendations that contribute to the development of the effect of the vocational education of vocational? education teachers on achievement in Bani E'baid district education

The Study's Limits

The limits of the study are as follows:

- **Time limits:** The study was conducted during the year 2024 (the first quarter of it).

- **Human limits:** This study is limited to teachers of the VE course in basic public schools in Bani E'baid district education.

- **Limitations:** One couldn't generalize the results, because one shall reach different results when re-conducting the study with targeting a different sample, or instrument.

Review of Literature

Ade & Mujiarto (2020) shed a light on empowering the teachers working at vocational schools in the form of scholarly writing to serve as a means of disseminating and communicating work and ideas to teachers or others. Creativity is the ability to change behaviors in writing scientific papers. These procedures are designed by empowering and implementing the capabilities of vocational school teachers in methods of investigation, editing, and compiling the results of papers and others related to community development and the era of the industrial revolution. Research methods include holding workshops and training scenarios through the use of classroom systems in job training and presenting the results on the job, and at the end of the workshop, an online scientific/research writing competition was conducted, stimulating and creating. The final competition was conducted through the use of scientific and technological media designed by professional educators. It was found that achieving the birth of (teachers) in vocational schools, especially in Bandung, in writing scientific studies on the Internet and digitizing them in the management of multicultural education while promoting education and national identity in an integrated manner that is commensurate with the process of developing the era of the industrial revolution and society.

Bani Abdo (2017) investigated the reasons behind having low academic achievement in VE course by students in the schools at Ma'an from the teachers' perspective. To have this goal met, he created a twenty three item survey. He surveyed seventy four teachers (including females and males). He used an approach called (descriptive approach). He found that the most important teachers' attitudes towards the reasons for the low academic achievement level in the VE course among students in schools in Ma'an Governorate from the Ma'an region, and the teachers' perspective came in the descending order as follows: reasons related to the student, family, teachers and school administration respectively.

Turkmen and Sertakahia (2015) shed a light on students' creative thinking skills in vocational secondary school. They employed the "Creativity Scale". The latter scale consists of seven items. It got translated into Turkish. It was employed to collect data from fifty nine (59) students chosen from several vocational secondary schools. The grades of those students are ninth, tenth, and eleventh grades. When students' cumulative scores and responses to the creativity scale for the first four items were compared with the fluency and uniqueness method, the results are consistent with what the researchers suggest. Based on the data and its analysis, a limited positive relationship exists between students' academic success and creativity. Differences in answers to the other three items are greater than in related research. This finding is supported by the literature that says knowledge is necessary but not sufficient for creative thinking. Türkmen & Sertkahya (2015) add that students being in their teens and having knowledge and experiences leads to the formation of more mental images related to the creativity scale items and many difference responses.

Lucas and Spencer (2013) provide a definition of creativity. This definition is a five-dimensional one. They conducted two experiments conducted in schools which location is England. They offered a review of theoretical articles and works on the assessment of creativity and defining it with offering a set of practical tips and suggestions about the way in which creativity can be promoted and assessed in schools. There are two advantages for the assessment of the progress achieved when developing creativity were identified. These advantages are listed below:

1) Teachers shall show more confidence and accuracy when promoting creativity among students, and 2) Learners shall acknowledge the meaning of creativity. They shall be capable of recording evidence of their progress based on the latter meaning. The result appears to be a greater likelihood that students will be capable of demonstrating the full range of their creative tendencies in various contexts.

Lekar (2007) analyzed the challenge hindering students from showing innovation. He sheds a light on the roots and causes of this problem. He identifies the reasons behind showing a low level of performance by students. He shows the main factors influencing students in this regard. He adds that the role of the teacher remains crucial in promoting innovation among students. He highlighted the significance of the systemic approach and the importance of the role of the economy and the supportive environment.

Maisuria (2005) shed a light on the promotion of creativity through the national curricula in England and Wales. He adds that the dimensions of creativity in the national curriculum have been purged through several government directives since the speech of Ruskin in 1976. The whole dimensions aim at offering provisions for standardization, centralization and professionalization in education. The proliferation of centralized testing systems and quality assurance procedures have damaged the judgment of teachers and students. They have turned education into a game. In this games, teachers shall teach the art of administering exams and students

shall realize the consequences of not showing compliance. Despite New Labour's fascination with measurable criteria, the attack on creative subjects appears to have been somewhat reversed. Much effort has been made to integrate creativity into the national curriculum with the aim of revitalizing the creative spirit of teachers and pupils.

Methodology

This part provides the reader with data about the approach, sample, instrument and population. It also provides reader with data about the instrument. It provides the reader with data about the validity and reliability of the instrument and the means and the program used for processing data.

Approach

The descriptive analytical approach was adopted. In addition, a quantitative approach was adopted to process the numerical data statistically to reach results.

According to Gillette (1984), researchers adopted the descriptive analytical approach to offer a sensory description of things or products. According to Verhoef and Casebeer (1997), the quantitative approach may be adopted to offer factual, and reliable data which can be generalized to larger populations. It involves either using an experiment or a survey. According to Renjith et al. (2021), it involves using methods that are highly structured, such as: scales, questionnaires, and inventories.

It involves using statistical / mathematical methods for processing the numerical data. It can be used to test a set of hypotheses

Population

The population refer to all the ones targeted by the study. It involves -in this article all the VE teachers in Bani E'bad district.

Sample

The sample in this article was chosen through the use of a stratified random method. It consists from 100 VE teachers chosen from the schools in Irbid, Jordan. Data about those VE teachers are shown in the following table

Table. 1: Data about the gender and experience of the sampled teachers

Variable	Category	Frequency	P%
Gender	M.	42	42
	F.	58	58
	Total	100	100
Experience	Experience that's less than five (5) years	38	38
	Five (5) years - less than fifteen (15) years	44	44
	Fifteen (15) years or more	18	18
	Total sample size (N)	100	100

Instrument

Identifying the degree to which the VE curricula is effective in the development of the professional creativity of student based on the views of VE teachers working in the country of the researcher (i.e. Jordan). To identify this degree, the researcher designed a survey that includes two parts. Part one aims to identify the gender and experience of the sampled teachers (i.e. their demographic data). As for the second part, it aims to identify the respondents' attitudes in the following areas: the personality, and traits, rational approach and social and personal factors.

To identify the answer of each respondent, the five-point Likert scale was used. This scale consists of the following categories:

(To a very great degree, to a great extent, to a moderate degree, to a little degree, and to a very little degree).

The latter categories stand for the scores shown below respectively:

- Five scores
- Four scores
- Three scores
- Two scores
- One score only

Validity

The validity of the instrument was assessed and checked through passing the survey to a panel of experts (specifically three experts). The latter experts were asked to assess the survey in terms of clarity, language use and relevnycya to the goals. They added that the language is clear and the survey is connected to the goals of the

study. The researcher made changes to the instrument based on the recommendations offered by those experts. Then, he created the final version of the survey

Reliability

To measure the reliability of the instrument, Cronbach's alpha coefficient values were calculated. The overall value of Cronbach's alpha coefficient is (0.883). Thus, one can add that the targeted instrument is highly reliable.

Statistical Analysis

A statistical analyst used SPSS software to analyze the data obtained through the survey forms. He used the following means to process data in a statistical manner:

- Frequencies and percentages: The statistical analyst used them to collect data related to gender & experience (i.e. characteristics) of the ones constituting the sample.

□ Means & standard deviations: The statistical analyst used them to identify the attitude of each respondent and the overall attitude.

□ Cronbach's Alpha: The statistical analyst used it for measuring the reliability of the survey.

□ The multivariate analysis of variance: This analysis was used by the analyst to identify whether the differences between the attitudes are significant.

The statistical analyst used the criteria shown below for classifying the means:

□ Low level: The means which fall in the following range: (1.00 - 2.33) are deemed low

□ Moderate level: The means which fall in the following range: (2.34 - 3.67) are deemed moderate

□ High level: The means which fall in the following range: (3.68 - 5.00) are deemed high.

Results

Results related to the first question:

What is the effect of the vocational education of VE teachers on achievement in Bani E'baid district education? To identify the answer to this question, several values were calculated for all the areas being targeted in this article. The targeted areas are: rational Approach, and Traits & personality. They include interpersonal & social factors). Those values can be identified through reading the second table below:

Table (2): The standard deviations and means of the areas that are targeted in this article

No	Variables	M	S.D	Rank	Level
2	Traits & personality	3.25	.71	1st	M.
1	Rational approach	3.17	.84	2 nd	M.
3	Interpersonal and social factors	2.88	.52	3 rd	M.
	Total	3.01	.69		M. ¹

Based on the second table, the study found that the level of appreciation of the respondents towards what is the impact of professional education for vocational education teachers on academic achievement in educational creativity in the Bani

E'baid District is moderate. That's because the overall mean is 3.01. The overall standard deviation is (.96).

The impact of VE for VE teachers on academic achievement in the Bani E'baid

District is moderate in the field of (Traits & personality). That's because the mean of the latter dimension is (3.25). The mean of the (rational approach) dimension is 3.17. It is moderate. The mean of the (interpersonal & social factors) is (2.88). It's moderate.

These results could be attributed to the fact that the targeted approach is deemed the closest to explaining professional creativity in particular and creativity in general in the field of education. They indicate that the developers of professional curricula should take the intellectual and cognitive capabilities of the targeted students into consideration when developing curricula. Creativity in this regard is affected by the way in which students use their intelligence and think.

Traits & personality are deemed as important factors that are strongly connected to professional creativity. In fact, the researcher believes that the some aspects of one's creativity are the product of his Traits & personality. That shall enable the professional curricula to promote creativity among students.

Regarding social and personal factors, they often constitute the primary parts of the environment at which the pupils is living at. They play a crucial role in developing his/her creative abilities in various area. That shall enable the students to use the creative concepts embedded in VE curricula at schools.

¹ Moderate level

The results in this regard are in agreement with the one reached by Türkmen & Sertkahya (2015). The latter researchers concluded that the students who have greater amount of knowledge and experiences possess a greater number of mental images connected to creativity. The results in this regard are in agreement with the one reached by Lucas and Spencer (2013). The latter researchers concluded that the targeted teachers are capable of showing more accuracy in the promoting of creativity among the students who are young. The results in this regard are not in agreement with the one reached by the study of ESCWA (2017). The latter researchers concluded that a great need for promoting awareness about the concepts related to work, craft, creativity and leadership in the curricula used in Jordan

Results related to the second question

Is there any significant difference between the respondents' attitudes which can be attributed to experience or gender?

To reveal the importance of differences between the attitudes of the sample members towards the impact of vocational education for vocational education teachers on educational achievement in education in the Bani E'baid District due to (gender, experience), the means and standard deviations were calculated as shown in Table (3).

Table (3): Values that represent the attitudes towards the effect of the VE VE teachers on achievement in Bani E'baid district education to (gender, experience).

Variable	Category	No	M	S.D
Gender	M.	42	3.15	.871
	F.	58	3.21	.914
Experience	Experience that's less than five (5) years	38	3.11	.591
	Five (5) years- less than fifteen (15) years	44	3.22	.011
	Fifteen (15) years or more	18	3.24	0.971

Based on the third table, it appears that there are differences between the means representing the attitudes of the respondents in accordance gender and experience.

To identify whether there are significant differences – at the significance level of ($\alpha = 0.05$) between the attitudes of the respondents which can be attributed to gender and experience, the multivariate analysis of variance was conducted. The results of reached through this type of analysis can be seen in the fourth table below

Table 4. Results reached by the researcher through conducting the multivariate analysis of variance

Source	Sum of Squares	Df	Mean Square	F	Sig. □□
Gender	.86	1	.86	.60	.13
Experience	.18	1	.18	.11	.02
Error	87.01	97	.53		
Total	1856.03	100			

The data shown in the fourth table suggest that there isn't any significant difference -at the level of significance of ($\alpha = 0.05$)- between the respondents' attitudes which can be attributed to gender. However, there are such significant differences -at the significance level ($\alpha = 0.05$)- to experience.

To identify the group of respondents which the experience-related differences are for their favor, the post-hoc test was conducted through using the Scheffe method.

The results of the Scheffe test can be seen in the table below

Table 5. The data offered through Scheffe Test

	Category	M.	Sig.
Experience that's less than five (5) years	Five (5) years - less than fifteen (15) years	-.47344	.363
	Fifteen years or more	-1.215(*)	.213
Five (5) years - less than fifteen (15) years	Experience that's less than five (5) years	-.04414	.198
	Fifteen years or more	.72930(*)	.566
Fifteen (15) years or more	Experience that's less than five (5) years	-.82764	.029
	Five (5) years - less than fifteen (15) years	.48764	.235

The table above presents the differences. They are for the favor of the group who have (Fifteen (15) years of experience or more). That means that the teachers with more experience are able to use professional curricula in a manner that promote professional creativity among students

Conclusion:

It has been shown that there is an impact of the VE curricula in developing the impact of vocational education for vocational education teachers on educational achievement in education in the Bani E'baid District, which was of a moderate degree. Regarding the results, they suggest that the teachers with more experience can use curricula for the promotion of creativity among students. They confirm the importance of (rational approach, social and personal factors and Traits & personality) in promoting creativity among school students

Recommendations

In light of the reached findings, the study recommends:

- Embedding a group of terms in VE curricula for promoting professional creativity among students. Those concepts are connected to entrepreneurship and creativity
- Providing the teachers of VE courses with specialized training programs and courses to enhance their skills in terms of the use of creativity-related concepts in classes.
- Conducting other research articles that shed a light on other factors related to creativity. That should be done with targeting other research populations.

References:

1. Abu Asbeh, May (2005) Problems of vocational education in Palestinian vocational secondary schools from the point of view of professional teachers and students, Master's thesis, An-Najah University, Palestine.
2. Ade Tutty Rosa & Mujiarto, A. (2020) Teacher Development Potential (Creativity and Innovation) Education Management in Engineering Training, Coaching and Writing Works through Scientific Knowledge Intensive
3. Knowledge Based on Web Research in the Industrial Revolution and Society. International Journal of Higher Education Vol. 9, No. 4. 161-169.
4. Al-Labadi, Rashid (2018) The degree of application of the principles of governance in the vocational education curricula for the basic stage in the capital, Amman, from the point of view of teachers. Master's thesis, Middle East University. Jordan.
5. Al-Sa'eeda, Monem, and Mahasna, Omar (2015) Problems facing vocational education students at Al-Balqa' Applied University during field training. Journal of Educational Sciences Studies Volume 42 Number 1.
6. Amabile, T. M. (1996) Creativity in context. Boulder, CO: Westview.
7. Ayrout, Mustafa (2010) Estimating the degree of vocational guidance for tenth grade students in Amman education directorates from the students' point of view. Journal of Specific Education Research. Article 4, Volume 2010, Issue 18 Page 87-119
8. Bani Abdo, Amer (2017) The Reasons for the Low Level of Academic Achievement in Vocational Education among Students in Ma'an Governorate Schools from the Point of View of Teachers. Al-Hussein University Journal, Volume 3, Issue 2.
9. Bessant, J., & Tidd, J. (2011). Innovation and entrepreneurship. New York: John Wiley & Sons Publishing
- ESCWA (2017) The extent to which the concepts of work, professional work, entrepreneurship and creativity are included in Jordanian textbooks. The Higher Population Council in Jordan.
10. Hawartha, Noura, and Al-Saeeda, Menem (2020) The life tasks in vocational education for upper basic stage students in Jordan and their priorities as perceived by the students themselves. Al-Jakea'a Islamic Journal for Social and Psychological Sciences. Volume 28, Number 5.
11. Jawarneh, Tariq (2015) Attitudes of the tenth grade students in the northern Mazar district towards vocational work and vocational education. Mutah Journal for Research and Studies, Human and Social Sciences Series, Volume Thirtieth, Issue Six.
12. Khames, F., & Hammud, H., (2018) The Reality of Teaching Prevocational Education Course in Primary Education from the Viewpoint of Teachers and Secretaries. Journal of Educational Science Studies, Volume (42) No. (2).
13. Kharoub, Nasser Mohammed (2016) The Impact of E-Business Capabilities on Human Resources and Organizational Performance in the Jordanian Retail Sector Case Study "Sameh Mall Investment Group. Master's thesis, Middle East University, Jordan.
14. Khedhaouria, A., & Belbaly, N. (2011). Organizational creativity climate factors: Lessons learned from the French energy management industry. Proceedings of ECIS 2011, paper 143

15. Likar, B. (2007) 'Innovation in vocational education – ways of reaching the tip of the iceberg', *Int. J. Innovation and Learning*, Vol. 4, No. 4, pp.323– 341.
16. Lucas, B., G. Claxton and E. Spencer (2013), "Progression in Student Creativity in School: First Steps Towards New Forms of Formative Assessments", *OECD Education Working Papers*, No. 86, OECD Publishing. <http://dx.doi.org/10.1787/5k4dp59msdwk-en>
17. Mahasneh, Omar, and Al-Azmi, Alya (2015) The Effect of Using the Workshop Conversation Approach with the Five-Student Groups in Achievement of Tenth Grade Students in PreVocational Education. *Journal of Educational Science Studies* Vol 42. N 1.
18. Maisuria Alpesh (2005) The Turbulent Times of Creativity in the National Curriculum . *Policy Futures in Education*, Volume 3, Number 2.
19. Ministry of Education (2013) *General Framework and Public and Private Outcomes: Vocational Education*. Amman: Curriculum and Textbook Department.
20. Primozic, Marjeta and Hasliger, Natasa and Kopac, Anja (2008) Vaupotic Karmen and Hasliger, Natasa and Kopac, Anja (2008) The Role of Career guidance in ensuring equal opportunities of young people in labour market.
21. Rank, J., Pace, V. L., & Frese, M. (2004) Three avenues for future research on creativity, innovation, and initiative. *Applied Psychology: An International Review*, 53: 518-528.
22. Tawalbeh, Hadi., Alawneh, Muhammad, Rifai, Abeer (2014) The degree of inclusion of vocational education concepts in national and civic education textbooks for the upper basic stage in Jordan. *Al-Manara Magazine*, Volume Twenty, Issue 2/b.
23. Türkmen, Hakan & Sertkahya, Mehmet. (2015). Creative Thinking Skills Analyzes Of Vocational High School Students. 2146-7463.
24. Gillette M. (1984). Applications of Descriptive Analysis. *Journal of food protection*, 47(5), 403–409. <https://doi.org/10.4315/0362-028X-47.5.403>
25. Verhoef, M. J., & Casebeer, A. L. (1997). Broadening horizons: Integrating quantitative and qualitative research. *The Canadian journal of infectious diseases. Journal canadien des maladies infectieuses*, 8(2), 65–66. <https://doi.org/10.1155/1997/349145>
26. Renjith, V., Yesodharan, R., Noronha, J. A., Ladd, E., & George, A. (2021). Qualitative Methods in Health Care Research. *International journal of preventive medicine*, 12, 20. https://doi.org/10.4103/ijpvm.IJPVM_321_19
27. Ariyani, L. F., Widjaja, S. U. M., Wahyono, H., Haryono, A., Rusdi, J. F., & Pratama, C. B. A. (2021). Vocational education phenomena research method. *MethodsX*, 8, 101537. <https://doi.org/10.1016/j.mex.2021.101537>
28. Milmeister, P., Rastoder, M., & Houssemand, C. (2022). Mechanisms of Participation in Vocational Education and Training in Europe. *Frontiers in psychology*, 13, 842307. <https://doi.org/10.3389/fpsyg.2022.842307>
29. Gillette M. (1984). Applications of Descriptive Analysis. *Journal of food protection*, 47(5), 403–409. <https://doi.org/10.4315/0362-028X-47.5.403>
30. Verhoef, M. J., & Casebeer, A. L. (1997). Broadening horizons: Integrating quantitative and qualitative research. *The Canadian journal of infectious diseases. Journal canadien des maladies infectieuses*, 8(2), 65–66. <https://doi.org/10.1155/1997/349145>
31. Renjith, V., Yesodharan, R., Noronha, J. A., Ladd, E., & George, A. (2021). Qualitative Methods in Health Care Research. *International journal of preventive medicine*, 12, 20. https://doi.org/10.4103/ijpvm.IJPVM_321_19
32. Ariyani, L. F., Widjaja, S. U. M., Wahyono, H., Haryono, A., Rusdi, J. F., & Pratama, C. B. A. (2021). Vocational education phenomena research method. *MethodsX*, 8, 101537. <https://doi.org/10.1016/j.mex.2021.101537>
33. Milmeister, P., Rastoder, M., & Houssemand, C. (2022). Mechanisms of Participation in Vocational Education and Training in Europe. *Frontiers in psychology*, 13, 842307. <https://doi.org/10.3389/fpsyg.2022.842307>