Factor Analysis: Exploratory and Confirmatory of Developed Scale of Vocational Counseling Needs for Undergraduate Students

Waleed Soliman Yousef Hayajneh
Assistant Professor of Education Measurement and Evaluation, Department of Educational Science, Irbid University College, Al-Balqa Applied University
dr_waleed_hayajneh@bau.edu.jo

Nayef Fadous Alwan Alhamad
Associate Professor of Psychological counseling, Department of Educational Science, Irbid University College, Al-Balqa Applied University

Abdullah Hussein El-Omari
Associate Professor of Methods of Teaching English, Department of English Language and Literature, Irbid University College, Al-Balqa Applied University

Omar Bani Yassien
Associate Professor of Education Measurement and Evaluation, Department of Educational Science, Irbid University College, Al-Balqa Applied University

Abed Al-Razaq Alhassan
Associate Professor of Special Education, Department of Educational Science, Irbid University College, Al-Balqa Applied University

Abstract

The aim of the this study is to build a Vocational Counseling Needs Scale using Exploratory and Confirmatory Factor Analysis. An Exploratory Factor Analysis (EFA) was conducted using the Principal Components Orthogonal Rotation (Varimax) method on a sample of 405 students from Irbid University College affiliated to Al-Balqa Applied University in order to establish the exploratory structure of the scale. The results showed that there was one scale factor that included (27) items, with loadings more than 0.04. The results of a Confirmatory Factor Analysis (CFA) showed a one-dimensional measure, in terms of the used indices (CFI= 0.994>0.0.90, GFI= 0.939>0.0.90, RMSEA=0.018<0.08, SRMR=0.022<0.05).

Key words: Vocational Counseling Needs, Exploratory Factor Analysis, Confirmatory Factor Analysis

1. Introduction

The needs of Vocational Counseling at university stage are considered one of the most important educational Psychological issues. They have a special significance that benefits the student; in contrast of the continuous developments and changes regarding knowledge, technology and culture which is taking place in the world today.

These changes; have affected all aspects of economic, social, and educational life, especially university education. Thus, providing university students with Vocational Counseling needs, turned into a pressing need to assist them with confronting new difficulties, presented by the labor market, professions world in general and the educational quality in particular (Savickas & Briddick & Watkins & Edward, 2002). Santos (2003) believes that the labor market is witnessing major transformations that made individuals face fundamental changes in relation to social and professional life and these transformations occur at an increasing pace than before, some of which; the high level of unpredictability of professional life and employment opportunities, thus the student professional identity developing process became more challenging,

The university stage is the one where student form his or her personality, faces multiple challenges and problems in various fields, the most important of which, is the professional needs that require finding effective solutions for such challenge and problems. In providing advanced curricula, Psychological, educational, professional counseling services, human relationships building and social interaction, the university clearly and effectively contributes in building the student's personality. Accordingly, it can be said that the student's personality crystallizes and becomes evident during the university preparation period. This includes; the student's attitudes, inclinations, preparations, mental values and abilities, in addition to his or hers multiple needs and motivations (Abdullah and Hammoud, 2015; Al-Sarraf, 2001). Turner & Berry (2000) concluded that their findings support the value of counseling and Vocational services as part of the factors, decision-making independence, and the interest in collecting information about the professions world.

Reviews demonstrate, that there is an earnest requirement for Vocational Counseling at all levels and education stages. Each educational stage require different guidance methods as the goals differ from one stage to another. In the primary stage, Vocational Counseling programs, must aim to increase the students awareness and knowledge of the various Vocational roles, the role of work in the community, social behavior and responsible behavior (McMahon, 2006).

At the intermediate level, Vocational Counseling programs, aim to help students form concepts about basic skills, learn decision-making abilities, and about the work world and "Psychological" affinity to it. The point of Vocational Counseling programs at the Secondary level is to keep acquainting understudies with occupations, to recognize profession options and to plan to go into the work world or instructive specialization at college to get ready for a particular vocation. With respect to college level, Vocational Counseling programs mean to assist understudies with setting up their expert decisions, to create explicit and particular expert abilities and to reassess their tendencies and aptitudes, and plan to enter a particular professional field (Zunker, 2002).

As matter of importance for the student's vocational needs we find that; choosing a major is a first step on the path to success, some of the reasons behind the wrong choice of many students , which lead them to professions and occupations that are not compatible to them are; many students fail due to the wrong choice, developments and economic changes accompanied With changes in the labor market, the diversity of scientific disciplines offered at higher education institutions, and the lack of information on the necessary professions and specializations (Hatch, 2008).

The importance of profession needs and vocational counseling started back in 1909 by Frank Parsons, where he published his famous book Choosing a Vacation, he proposed several measures or steps to help the individual choose a career based on his inclinations, abilities and the information provided to him regarding professions available in the society and they are (Galassi & Akos, 2012): the individual knows oneself (preparations, abilities, inclinations, and points of strength), the awareness of; the success requirements and conditions for each profession or group of professions, its advantages and disadvantages, and the opportunities that it provides. Finally, making a conscious decision based on balancing or matching between the facts and the information collected in the previous two steps. This step includes real thinking or guidance to link personal and professional information(Geltner & Clark, 2005; Al-Momani, Al-Momani, and Hayajneh, 2019).

Vocational counseling helps the individual choose the profession that is most suitable and satisfying his/her various needs; That is helping the individual make the right professional decision in the academic choice, therefore the appropriate profession for his preparedness, abilities, inclinations, preparing for and joining in the future, all with the aim of increasing the possibilities of success, progress, development in his field of work, and achieving a state of professional compatibility, which means; that the job of professional guiding is to help the individual , so he/she feels fulfilled, and adds to the work regarding amount and quality, so others are happy with him/her (Rida, 2006; Melhem, 2007).

Super (1988) defines vocational counseling as the process of helping an individual to form and accept a self-image and helping him/her to choose this image and embrace it to make oneself happy. Frank Barsons defines it as the process of helping an individual to understand him/herself in all its aspects as well as understanding the work world with all its requirements and aligning them to make the right professional decision (Lapan, Gysbers, Stanley & Pierce, 2012). Santos (2003) emphasized that the labor market is witnessing major an increasing transformations than before, including high level of unpredictability of profession and employment opportunities which have made individuals face fundamental social and professional changes, these transformations occur at an increasing pace, thus became a more challenging process of developing a professional identity than before.

Turner & Berry (2000) found the importance of counseling and vocational services as part of the main factors in the progress and success of students at the university, and the importance of meeting the necessary requirements to actuate the jobs of Psychological and expert guides, for example, Psychological and proficient estimation tools, to identify the students general and personal capabilities, and measure their inclinations, attitudes, interests and social and cultural values. Findings of a study by (Guneri, and Skovholt., 2003) that new students in Turkish university; expressed their strong need for counseling service to address academic matters, while students at the higher and final levels expressed their need to develop job search skills, Decision making and self-understanding. Dodson (2009) believes that vocational counseling is very importance in the university student life, he also stated that the profession reliability of members of society needs profession awareness and maturity in order to head for the appropriate specialization, and this comes only with knowledge of vocational information about jobs and occupations. Moreover to achieve a part of profession maturity through: Helping the student to understand oneself in light of his/her abilities, preparedness and inclinations, and to determine his/her profession needs in a way that suits the level, and to introduce students to the profession fields that they will practice after university education or start in after graduation.

Now days, the world cares more about vocational education process due to the prevalence of unemployment, especially in developing countries. Therefore, governmental strategies, always reflect interest in vocational education, encourage those enrolled in it and help the student to understand him/herself in the light of abilities, preparedness and inclinations, to determine his/her vocational needs, and to introduce students to profession fields that they will practice after university education or to start in after graduation. Therefore, we must know what students need in relation to vocational counseling services, in order to help them achieve the highest level of success (Abdullah and Hammoud, 2015). Achieving this vocational counseling needs of these students have to be understood, which is the current study aims, and in perusing to achieve the goals of development plans in Jordan and of Al Balqa Applied University in particular, justification for the study stem from the importance of directing students toward the academic orientation program.

Few vocational needs studies have been conducted, in this regard, among of which is Kunnen, (2013) investigated the effects of a student career choice before and after the guidance on identity development. Following the guidance findings showed—as expected—that the members demonstrated a critical increment in duty quality in the professional and individual areas and in worldwide personality, the impact size was moderate. The members demonstrated essentially higher increment levels than did the norm group. Ngeno & Amos (2014) additionally led a study planned to determine understudies' view of the effect of direction and guiding system on the fulfillment of professional needs, the exploration study was guided by Gestalt hypothesis of perception, findings demonstrated that the respondents perception on the effect of direction and advising on fulfillment of professional needs was questionable (neutral perception), and the Category of School (Mixed Boarding) found significant in its effect on view of understudies of students of guidance and counseling on vocational needs, while age, sexual orientation, school type and class levels was found insignificant.

Amoah, Kwofie, & Kwofie (2015) study aimed to examine whether the role of the school counselor has any influence as well as guide students in their bid to choose career. Findings of the study showed that students strongly agreed that career guidance and counseling, career goal identification, organization of career days and conferences, administration of Vocational interest inventory on students were among career intervention roles by the school counselor influence their choice of career. a positive correlation between the role of the counselor and its influence on student's choice. Adefunke (2015) evaluated the professional needs of counselor and contrast in it capacity needs to adapt to cope understudies as far as their sex, age and years of professional experience of professional involvement in a view to helping the counselors to improve administration conveyance in optional schools. A randomly sample selected of 60 school counselors from Osun State. A Professional Counselors Needs Assessment Instrument (PCNA) was planned comprised of two segments, segment A comprised of statistic attributes of the respondents. Segment B contained things on the professional capacity needs of guides. findings led that 25 (41.7%) of the counselors had moderate capacity needs to adapt to in danger understudies. It additionally uncovered that sexual orientation and age and years of experience are not significantly different in their capacity to cope with student.

Al-Momani, Alhamad & Al-Azam,(2018) study that aims at examinee the vocational and Psychological counseling needs through a randomly selected sample of 291 Male and female students from Al-Balqa Applied University students, findings of the study showed; that the level of vocational and Psychological counseling needs among students of Al-Balqa Applied University was a medium degree, with a significant statistical difference between the two means of male and female students for the females, attributable to the variable of the school stage in favor of the diploma compared to the bachelor's degree. The presence of statistical significant differences between the arithmetic average in connection to the members of the study sample estimates, on the items of the of vocational and Psychological needs scale as a whole, due to the variable of specialization in favor of the study sample estimates with -vocational and humanitarian- specialty, in comparison with professional to those with scientific specialization.

Tsui, Lee, Hui, Chun, & Chan (2019) understanding the scholastic and profession goals of teenagers and their goals could illuminate policy makers and teachers about how best to offer help at society and school levels to encourage young people changing from school to facilitate training and work. Subjective examination researches seven secondary students from three schools with shifting admissions of understudy capacity under the "Secondary School Places Allocation System" in Hong Kong. Findings show that the scholastic and profession yearnings of young people and their goals are formed by prevailing inclinations for accomplishing higher capabilities, ideally a four year college education, parental and others' persuasions, and results of open assessment results. The ramifications of improving help for the cultural, school, and vocation and life-planning education of people are talked about.

From the review of previous studies it is noted, that there is an urgent and necessary need to uncover the vocational needs of university students (Santos, 2003; Turner & Berry, 2000; Guneri, and Skovholt, 2003). Therefore, the Al-Momani, Alhamad & Al-Azam (2018) study, revealed the vocational and Psychological counseling needs of Al-Balqa Applied University students. The Study problem and its questions regarding the needs of vocational counseling are considered among the most important necessities that a university student require. Reason for that is, that some of them are unable to choose the appropriate specialization or adapt to their academic specialization, and choose the future profession, especially since counseling is a process that aspires to help the student decide his/her career, expose the diverse career opportunities open to him/her, hence the importance of satisfying the vocational guidance needs materializes in helping the individual to develop Psychologically in a healthy manner. An important part of life, the individual spends at work, and if the individual is better at choosing a profession, then achieving a certain degree of satisfaction is a possibility, but if the choice of profession mismanaged, it will negatively reflects on his/her productivity and effectiveness in work . Therefore, the current study came in an attempt to develop a the vocational needs scale for university students, which has acceptable psychometric properties, whereby the researchers did not find - within the limits of their knowledge - any measure of the vocational needs of university students, particularly in the Jordanian environment. Specifically, the current study came to answer the following two questions:

- What is the factorial structure for the vocational counseling needs scale?.
- What is the proposed single factor model suitability in relation to the content of the vocational counseling needs scale of the data?.

1.1. The Significance of the Study

- Vocational counseling needs are among the most important educational issues that have received attention from those interested in human resources, for it constitute the main resources of countries. Thus helping the student to choose the appropriate future career in order to achieve job adaptation.

- This is study provides a theoretical cognitive frame for the vocational counseling needs concepts and it is important to choose the major guiding then to profession that meets their the desires and interests it also has a practical significant by developing a scale to detect vocational counseling needs with accepted Psychological characteristics. This will enable university decision makers to explore the vocational counseling needs of their students.

- Student's need for vocational counseling, is one of the most important aspects that a university student require, since some of them are unable to choose the appropriate specialization or adapt to his academic field, and choose the future profession, especially since counseling is a process that arise to help the student decide his/her career, explores the diversity of profession opportunities .and the importance of satisfying the vocational counseling needs is evident in helping the individual to develop Psychologically in a healthy manner. The individual spends an important part of life at work, and if the individual chooses the best profession choice the, he or she can achieve a certain degree of satisfaction at work.

- The study significance also derives in practical from developing a vocational needs scale for university students, which composed of acceptable psychometric characteristics, whereby the researchers did not find - within the limits of their knowledge - any scale for the vocational needs of the university students that suits the Jordanian environment in particular.

1.2. Conventional and procedural definitions

- **Vocational counseling needs**; are profession needs related to various aspects of the university student's life, such as grasping his personal preparedness , measuring his inclinations, directions, interests, and general capabilities and regard choosing a specialty or profession appropriate for his/her future career, where he or she is not prepared to reach satisfaction on his/her own, but he/she needs Specialized help to satisfy and achieve Psychological and academic adaptation. Helping students to assess their preparedness and acknowledging the strengths and weaknesses by identifying profession experiences, achieving professional alignment through planning guidance programs to achieve professional and social success, and helping the individual to avoid the fields in which his/her weaknesses and limitations arise, and helping him to control his potentials and conditions of his/hers life, and helping him/her to Change profession if it is not satisfied (Lapan, Gysbers, Stanley & Pierce, 2012)

1.3. The Study limitations

The current study was limited to undergraduate at Irbid University College of Al-Balqa Applied University, who were enrolled in the first semester of the academic year 2019/2020.

2. Method and Procedures

2.1. The Study Population

The study population consisted of 2,671 male and female undergraduate students at Irbid University College of Al-Balqa Applied University, registered in the first semester of the academic year 2019/2020, and combined of 1092 male students, and 1,579 female students, distributed in 14 specialties.

2.2. The study sample

Sample of the study consisted of (811) male and female students from the undergraduate level at the Irbid University College of Al-Balqa Applied University. They were chosen by way of a stratified random sample according to the gender variable, of whom 382 male students, and 429female students, and for the purpose of answering the study questions they were divided into two groups randomly (using the SPSS program command *Select Cases*): The first group consisted of 405 male and female students, the second group consisted of 406 male and female students.

2.3. Vocational counseling needs Scale

The vocational counseling needs scale was constructed after relying on theoretical literature and previous studies related to vocational counseling needs, where the scale initially formed of 35 items, to be answered by the five point Likert scale where the grades that where given are: strongly agree was given (5), agree was given (4), impartial was given (3), disagree was given (2), and strongly disagree was given (1).

2.4.The vocational counseling needs scale Validity

The content validity of the vocational counseling needs scale was verified. In its initial form of 35 items, it was presented to a group of arbitrators from faculty members in some Jordanian universities in the fields of; Psychological counseling, educational Psychology, measurement and evaluation, the Arabic language curricula and its teaching methods, where some observations were made, the most prominent of which was an amendment to the linguistic wording of some items, the deletion of three items, and the merging of two items into one item, resulting into making the scale of 31 items. The scale was also applied to a survey sample of 73 male and female students to calculate the scales Corrected Item-Total Correlation items, where the results showed that there were four items with a Corrected Item-Total Correlation less than 0.30, which had to be deleted, and recalculate the correlation coefficients for the remaining 27 scales items shown in Table().

Table 1: Corrected Correlation Coefficients for Items of Vocational Counseling Needs Scale, consisting of (27) items

No.	Corrected Item-Total Correlation	No.	Corrected Item-Total Correlation
1	.59	15	.50
2	.42	16	.79
3	.47	17	.30
4	.58	18	.42
5	.57	19	.38
6	.48	20	.51
7	.38	21	.35
8	.68	22	.34
9	.34	23	.49
10	.37	24	.62
11	.51	25	.54
12	.45	26	.48
13	.38	27	.65
14	.33		

It is noticeable that all corrected correlation coefficient values for the vocational counseling needs scale items are greater than 0.30, and thus all values are acceptable for the purposes of this study

2.5.The reliability of the vocational counseling needs scale

The reliability of the vocational counseling needs scale was verified by the of testing and re-testing method, by applying it to a sample consisting of 73 male and female students from the study population and outside its sample, it was re-applied to the same sample with a two-week time interval between the two applications, where the reliability constant of the scale was calculated by calculating Pearson correlation coefficient where its value was 0.91, and the internal consistency coefficient of the scale was estimated using the Cronbach alpha equation where its value was 0.94, and both of which are acceptable values for the purposes of the present study.

2.6.Study procedures

The study was carried out according to the following steps:

1- a 23 classes from the courses offered at Irbid University College for the first semester of the academic year 2019/2020 were randomly selected, which included (1037) male and female students, teachers of those courses were met and the objectives of the study were clarified, an advance date was set for the scale application on the students of these randomly selected classes to ensure their cooperation, in order to facilitate the work of researchers during application.

2- Applying the scale of vocational counseling needs to the study sample members, after researchers clarify; the objectives of the study, the special instructions on how to respond to the items of the scale to achieve the greatest degree of accuracy and objectivity and to answer student's inquiries about the significance of some items while giving them time to respond.

3- 938 questionnaires were retrieved from the questionnaires distributed among the study sample, 127 of which were excluded because of the response pattern in them, or for not responding to some items, thus the number of valid questionnaires for statistical analysis was 811 questionnaire.

4- Using the *Select Cases* command found in the (SPSS) program, the questionnaires were randomly divided into two groups. The first group included 405 questionnaires whose data were used to reveal the factorial structure of the scale of vocational counseling needs through the use of exploratory factor analysis. The second group included 406 questionnaires, whose data were used to reveal the factorial validity of the scale of vocational counseling needs, using confirmatory factor analysis.

2.7. Statistical processing

To answer the first question, the Exploratory Factor Analysis (EFA) was used through the orthogonal rotation (Varimax) of the Principal components method ,for the scale of vocational counseling needs from theoretical aspect, using (SPSS v25, Lavaan v0.6-5) program, to determine the. Latent structure of the scale by using both the Eigenvalue and Scree Plot, in line with the steps of (Gorsuch, 1983) for exploratory factor analysis that includes: the inadmissibility of the item with a loading less than 0.40, the inadmissibility of the Trivial Factor dimension formed from two items and below, it is not permissible to saturate the item on two dimensions with two values more than 0.40.

To answer the second question, the confirmatory factor analysis was used for the scales items resulting from the exploratory factor analysis, using the (AMOS v24) program, where the following four matching indices were adopted to judge the conformity of the proposed model for factorial structure of the scale of vocational needs for data, namely: (χ^2/df), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI) (Byrne, 1998; Hau, Wen, & Cheng, 2004). and these indices were used to verify the possibility of acceptance or reject the suggested model, and use (χ^2/df) instead Indicator (χ^2) of the latter's sensitivity to the sample size, as it is preferred that its value not be less than (3) (Byrne, 1998), and (RMSEA) represents the discrepancy between the covariance matrix of observed data and specified model which must be less than 0.08. (GFI) is a measure of the relative amount of variance and covariance in the sample data that could be jointly explained by the hypothesized model which must be greater than 0.90. (CFI) is the result of the comparison between the null model and the proposed model which must be greater than 0.90 (Hau, Wen, & Cheng, 2004).
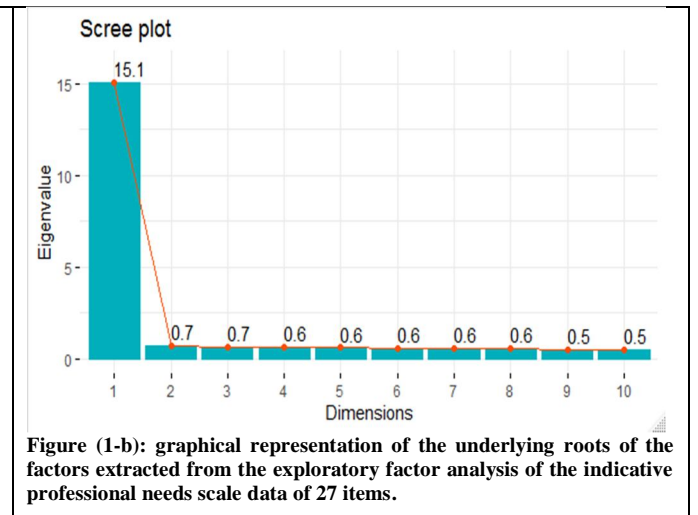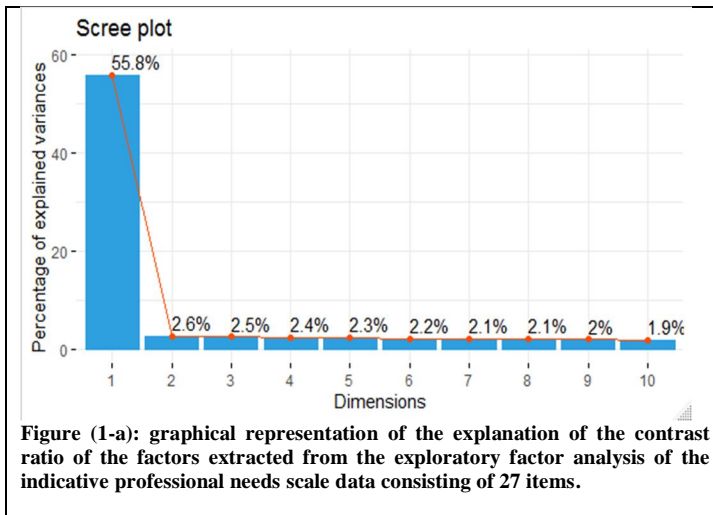
3. Results Presentation

3.1. To answer the first question, which stated: "What is the factorial structure of the vocational counseling needs scale?".

firstly using Exploratory factor analysis to find out the pattern and the extent to which the observed variables (items) are linked to their underlying structure (latent variables); i.e. find the unknown relationship between latent variables and items, (Byrne, 1998). Table 2 shows the results of this analysis.

Table 2: The results of the Exploratory Factor Analysis (EFA) using the Principal components method to reveal the factorial structure of the vocational counseling needs scale

Component	Total	% of Variance	Cumulative %
1	15.060	55.777	55.777
2	0.704	2.606	58.383

Figure (1-a): graphical representation of the explanation of the contrast ratio of the factors extracted from the exploratory factor analysis of the indicative professional needs scale data consisting of 27 items.

Figure (1-b): graphical representation of the underlying roots of the factors extracted from the exploratory factor analysis of the indicative professional needs scale data of 27 items.

The results shown in the table 2 showed the presence of one factor produced by exploratory factor analysis, where the value of its Eigenvalue value 15.060 was greater than 1; with an explanatory variance of 58.383%, both indicating Unidimensionality of the scale of Vocational Counseling needs (Hattie, 1985), This is confirmed by the Scree Plot illustration shown in Figure (1-a, a-b).

The loading of the Items of vocational counseling needs scale has also been calculated within the dimension to which they belong, as shown in a table 3.

Table 3: Parameters of the Items of the vocational counseling needs scale in Exploratory Factor Analysis

No.	Item	Loading	No.	Item	Loading
1		.764	15		.740
2		.774	16		.766
3		.748	17		.718
4		.741	18		.724
5		.788	19		.694
6		.739	20		.717
7		.769	21		.765
8		.739	22		.749
9		.721	23		.734
10		.757	24		.737
11		.763	25		.739
12		.745	26		.747
13		.789	27		.752
14		.736			

Kaiser-Meyer-Olkin Measure of Sampling Adequacy= 0.984, Sig. =0.000

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It is clear from the table 3 that the items of the scale of vocational counseling needs are saturated with loadings in excess of 0.40; thus, the scale of vocational counseling needs has been composed of 27 items with one dimension.
Results of the second question

3.2. The answer to the second question that stated: "How is the suitability of the proposed one-factor model relevant to the content of the indicative professional needs scale for data?".

requires drawing the proposed one-dimensional factorial model for the scale of vocational counseling needs consisting of 27 items (see figure). To verify the adequacy of the proposed model with the data sufficiently, the confirmatory factor analysis was used, and the table 4 shows this.

Table 4: The results of the confirmatory factor analysis of 27 items of the scale of vocational counseling needs

The indices validity of internal structure for the scale of vocational counseling needs items	Indices validity values of the internal structure	criterion index
Number of distinct sample moments:	378	
Number of distinct parameters to be estimated:	54	
Degrees of freedom (378 - 54):	324	
χ^2	365.773	
Sig.	0.055	

χ^2/df	1.129	less than 3
CFI	0.994	more than 0.090
GFI	0.939	more than 0.090
RMSEA	0.018	less than 0.08
SRMR	0.022	less than 0.05

It is noted from Table 4 that the model matching index adopted for the relationship of items of the vocational counseling needs scale with its dimension (CFI = 0.994> 0.0.90, GFI = 0.939> 0.0.90, RMSEA = 0.018 <0.08, SRMR = 0.022 <0.05) has achieved its standards, Which indicates the conformity of the adopted model for the data of the relationship of items of the vocational counseling needs scale with its dimension, which did not require determining the factors responsible for the non-conformity to reach an assertive model that matches the data of the relationship of the adopted model with the items of the scale of the vocational counseling needs scale with its dimensions, by calculating the values of indices Modification Indices that reveal correlations between the scaling faults for items of the vocational counseling needs scale that discredit the adopted model. With this, the scale of vocational counseling needs in its final form is 27 items with one dimension. Figure 2 shows the values of item loadings in its dimension.
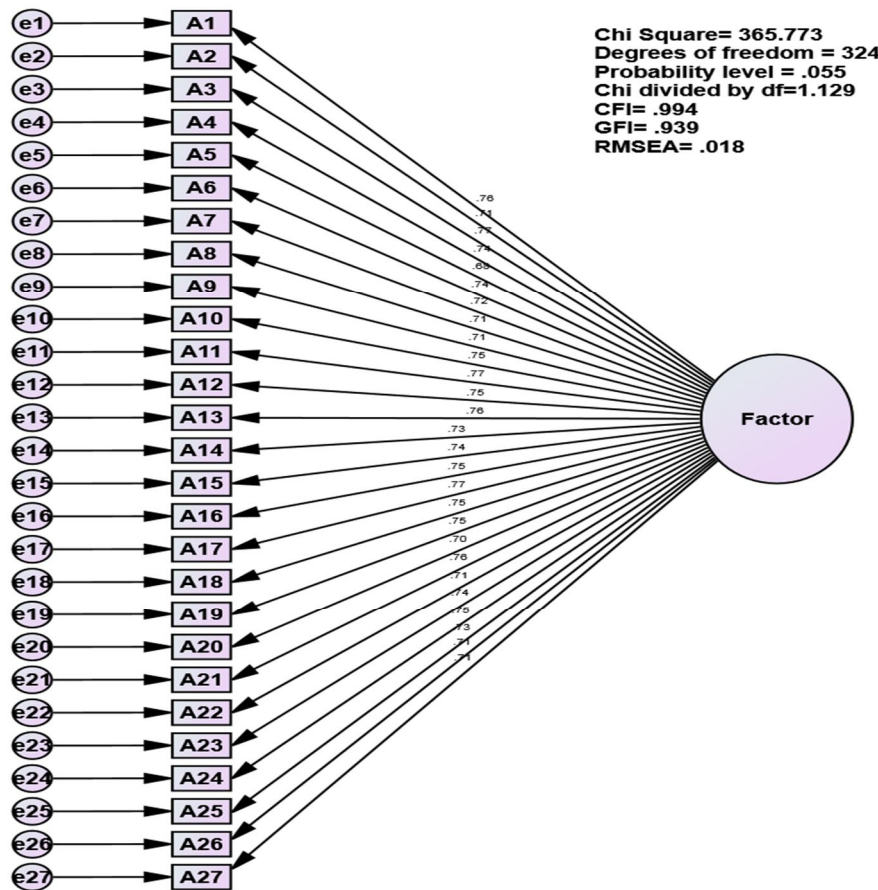

Figure (2): The factorial one-dimensional model for a vocational counseling needs scale consisting of 27 items.
   3.3.The results of the third question that stated: "What are the significance of validity and consistency for the scale of vocational counseling needs of university student?".

After revealing the factorial structure of the scale of vocational counseling needs using exploratory and confirmatory factor analysis, its apparent sincerity was verified by presenting it to a group of experts and arbitrators from faculty members in some Jordanian universities in the fields of: Psychological counseling, educational Psychology, measurement and evaluation, and Arabic language curricula and its teaching methods, where all their observations were adhered to. The structure validity of the scale was also verified by calculating the correlation coefficients for each item of the scale with the overall mark of the scale that ranged between 0.47 and 0.69 with statistical significance, and the coefficient of internal consistency of the items of the scale was estimated in its final form, where its value was 0.97, which is a high value and is acceptable for the purposes of the current study.

Thus, the scale of vocational counseling needs for university students was developed in one dimension and it contains 27 items that are answered according to the five-point Likert scale, it has benefited of a good psychometric properties, and this can be attributed to the precise procedures that the researchers followed in developing the scale from get go of the process of formulating items of the scale to checking its factorial structure, and where many previous studies related to vocational counseling were reviewed, and taking the opinions of specialists in the fields of: Psychological counseling, educational measurement and evaluation when formulating items of the scale according to good criteria and testers, and finally following statistical procedures from an confirmatory and exploratory factor analysis to examine the factorial structure of the scale.

The current study concluded that: employing the scale in the educational field to reveal the needs of public and private university students for vocational counseling, and to conduct more studies to reveal the factorial structure of the scale using other samples from university students, finally; to reveal the psychometric properties of the scale in the light of the Item Response Theory (IRT).

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