

Vocational Interests of Middle and High School Students in the UAE

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Abstract

This paper investigated the vocational interests of students in the UAE and determined its relationship to gender and grade level. The Emirates Scale for Vocational Interests- Revised (ESVI-R) was used to attain the goal of the investigation. The ESVE-R was administered to 1920 students in the different emirates who were in the 9th, 10th, 11th, and 12th grades. Accordingly, the sample was comprised of 866 (45.1%) male and 1054 (54.9%) female students. The data were analyzed using the appropriate descriptive and inferential statistical protocols. The results showed that there are significant gender differences in most of the subscales of ESVI-R whereas there are significant differences in some of the subscales according to students' grade level. The study concluded that the vocational interests of the students demonstrated stability along grade levels and that there was a notable shift in the vocational interests of female students in the trajectory of seeking an equal opportunity with their male counterparts.

Keywords: Vocational interests, gender differences, grade level, UAE school students.

Introduction

Today's world is characterized by a high degree of risk and ambiguity. The knowledge economy, in which the rhythm of production of knowledge is very fast, unfolds as an unprecedented and dynamic economic and social landscape before our very eyes. Today, all of us live in an era of anxiety which is characterized by unexpected and rapid changes in technology and in the labor market Gikopoulou & Agogi (2008).

In the current economic and social context, with so many highly educated graduates, noticeable differences between individuals are not attributed to the level of knowledge that they have but to the range of skill sets that they possess. Such skills include communication, leadership, multi-tasking skills, management of uncertainty and a host of others. As a consequence, traditional models of learning and professional development are changing, in the sense that such a myriad of skills must be learned by the graduates in order to be harmoniously integrated into economic and social life. Mitran & Pârnu (2017).

Nevertheless, it is widely known that vocational interests play an essential role in job satisfaction and academic achievement. Vocational guidance has historically considered both aptitude and interests as the central psychological dimensions in the training or job choice process Boerchi & Magnano (2015). Additionally, vocational interests are powerful motors driving the selection and maintenance of occupational careers (Holland,1997). Research has shown that interests are the most powerful determinants of educational and occupational choices (e.g., Navarro et al., 2007, Päßler and Hell, 2012).

Thereupon, it is not easy for most people to make the best choice and to use rational strategies when making career decisions (Anderson, 2003). Consequently, many career theories confirm the importance of conscious decision-making for healthy career development (Van Vianen et al., 2009). Choosing a career has a great influence on peoples' lives and should not be taken for granted. Therefore, high school students must be counselled and guided in this field. The best moment for career development is during the high school years and especially, the final year. The increased interest of high school students in this issue needs to be addressed and their needs and expectations should be incorporated in existing career counselling framework. This is also the time when high school students undergo the psychological maturity required for self-awareness. This process involves knowledge of their own personality characteristics, skills, and limits, interests, values, beliefs, which are necessary for choosing a career. (Brătucu et al.2014).

In this context, career counselling and vocational guidance become a significant element of any educational endeavor. However, considering the fact that adolescence and the period of secondary school are most important for laying the roots of a successful vocational and personal life, counselling and guidance assume greater relevance even at earlier stages of life (Mitran & Pârnu (2017). Adolescence seems to be a crucial period for the study of vocational development. Research showed that during adolescence, interests crystallize and stabilize, and career goals and aspirations become more realistic in terms of adaptation to personal and environmental characteristics (Low & Rounds, 2007; Walls, 2000). Furthermore, research suggests that the profiles of vocational interests are the key driving forces behind adolescents' vocational choices, implying that students make their vocational decisions on the basis of their likes and dislikes (Volodina & Nagy 2016).

The study of individual differences in vocational interests has been a cornerstone of vocational psychology

and career counselling since the early 1900s (Bestworth & Fouad, 1997). The most common factors associated with vocational interests in the literature are sex and age. Su, Rounds, & Armstrong (2009) came up with one of the most comprehensive reviews, involving a meta-analysis of 47 vocational interest assessments with a combined sample of over 500,000 people. The results revealed that males scored higher than females along the Realistic and Investigative dimensions, while females scored higher than males in the Artistic, Social, and Conventional dimensions. Both males and females did not differ significantly, along with the Enterprising dimension. Studies conducted by Betz, Harmon & Borgen (1996); Mullis & Mullis (1997); Proyer (2007); Alnajjar (2017) similarly uncovered considerable sex differences in the vocational interests of students in different geographic contexts.

Gender difference is considered one of the most important issues in dealing with adolescents vocational interests. Research revealed that gender differences are strongly correlated with sex-role stereotypes (Schulenberg, Goldstein & Vondracek, 1991). Furthermore, research revealed that gendered vocational development differed for men and women: women's aspirations in childhood and adolescence were less gender-typical compared to their vocational fields attained in young adulthood, whereas men's remained gender-typical from childhood to young adulthood. Further, childhood attributes predicted aspirations and attainment and their developmental trajectory (Lawson et al., 2018).

According to Hirschi, & Age (2007), male students scored higher in realistic and investigative interests while females scored higher in artistic and enterprising interests. No gender differences occurred in conventional interests. Such gender differences, especially for the realistic, investigative, and social types, are frequently reported in the literature (e.g. Lippa, 1998). In the same direction, Wilgosh (2002) found that girls tend to orient themselves more towards popularity and physical appearance, while they tend to reject scientific fields of activity. Girls also recorded a higher score than boys in the artistic field (Kniveton, 2004). These differences appear since childhood and become more obvious in adolescence (Sandberg et al., 1991). Nevertheless, another research results indicated that there are no gender differences in terms of realistic vocational interests, investigative interests, artistic interests, social interests, entrepreneurial interests or conventional interests (Mustata, 2014).

A study by O'Bryant, Durrett & Pennebaker (1978) argued that students from fifth grade to college (10-22 years) were less stereotypical in their career preferences, as they move from one grade to another. In the study of Kurbanoglu, & Arslan, (2015), they found that there was a statistically significant difference between students' grade level and educational and career interest scores. Moreover, it was observed that the pattern of interests was fairly stable in grades 8–12 for males and females. Interests were also found to become more crystallized over time (Tracey, Robbins & Hofsess, 2005).

Within the contours of the preceding argument, it was observed that studies on the vocational interests of the school students using current scales, showed mixed results. Likewise, there is a shortage of studies on vocational interest, in the Arab cultural context. Based on these considerations, there is a need for a more contextualized assessment of the vocational interests among school student in UAE. On this basis, this paper examined gender and grade level differences in vocational interests among middle and high school students in the United Arab Emirates, using the Emirates Scale for Vocational Interest Revised (ESVI-R) developed by Alnajjar, Dodeen, Alshaikh, Nassar, Daiban and Darwish (2018).

Method

Participants

The sample of this study was composed of students in the middle and high schools in UAE. The sample is made up of 1920 students, 866 (45.1%) of which are males and 1054 (54.9%) of which are female. The students study in grades 9, 10, 11, and 12 and were selected randomly from the different middle and high schools located in the different emirates. Their ages ranged from 14 to 20 years, with a mean age of 15.9 years. The distribution of the students who constituted the sample is shown in Table 1.

Table 1. The distributions of the students according to grade levels

Grade	Number of students	%
9	227	11.8 %
10	608	31.9 %
11	579	30.2 %
12	506	26.4 %
Total	1920	100 %

Instrumentation and procedures

The Emirates Scale for Vocational Interests- Revised (ESVI-R) enhanced by Alnajjar, Dodeen, Alshaikh, Nassar, Daiban, and Darwish (2018) was used to assess the vocational interests of students. This is an updated version of the original Emirates Scale for Vocational Interests (ESVI) developed by Al Ghorani, Dodeen, Darwish, and Farghali (2010). The Emirates Scale for Vocational Interests-Revised is composed of the following twelve sub-scales with the corresponding number of items: Literary Interests, 7 items; Police / Military Interests, 7 items;

Economic and real estate Interests, 7 items; Scientific Interests, 7 items; Engineering Interests, 7 items; Medical / health Interests, 7 items; Tourism and Archeology Interests, 7 items; law Interests, 7 items; Humanities Interests, 7 items; Educational Interests, 7 items.; Information technology and artificial intelligence Interests, 7 items; political Interests, 7 items. The scale consists of 84 items each answerable with a yes or no. The subscales reliability was found to be high with alpha coefficients ranging from 0.69 to 0.87 for the total sample.

Six senior psychologists evaluated the content validity of the instrument. The consensus among them ranged from 83 % to 100% for all items. In terms of construct validity, the correlation between each item and the total score for each sub-scale was computed to determine the internal consistency as an indicator of the scale validity. All correlations were relatively high and positive (Alnajjar et al., 2018).

The research instrument was administered by school counselors in students' classroom setting where the students were requested to answer each item individually. Data collection lasted approximately 25 min per classroom.

Results and Discussion

Table 2 reveals that both males and females relatively have literary interests, consequently, both prefer to find jobs related to that type of interests, These results might be explained by considering that the jobs related to that type of interest are associated with a good reputation in UAE society. In other words, such jobs may make the person well-known and famous as an author or a poet.

Regarding the second type of interests which is "Military and police interests," it was very interesting to discover that females have more interests in this than their peers of males. Moreover, according to independent t-test results, the differences between males and females regarding this interest is significant $P \leq 0.004$. Using 0.004 as the level of significance to examine the statistical hypotheses was to avoid any inflation of the probability of type one error based on Bonferroni correction. According to that correction, the original level of significance was divided by 12, the number of times the same statistical procedure was used in the same analysis. So, the original level of significance of 0.05 was corrected and the level of significance was 0.004.

The foregoing result could be justified by considering that females in Arab countries and in the UAE specifically are always trying to prove that they are able to do anything that males usually can do for their society even if the work involved risk and difficulty. The significant differences between the males' and females' economic and real estate interests could be understood in the same context, as females are attempting to prove that they can perform all male-dominated occupations in UAE society. In terms of the UAE students' interests toward types of jobs that might be classified in the field of science or applied sciences, it's clear that both males and females relatively have strong interests toward the jobs related to this field. This could be because such occupations have many advantages such as getting a good income and being hailed as successful persons in the society. The results of the current study do agree with Kurbanoglu, & Arslan's (2015) conclusion which indicates that there is no significant difference between males and females high school students in terms of their educational and career interest scores as both males and females are increasingly more interested in improving their scientific knowledge and skills. In the same direction, the last results of the current study support the research results indicating that there is no gender difference in terms of realistic vocational interests (Mustata, 2014). So, it could be deduced that both male and female UAE students prefer to deal with concrete things and that reflects their generation's type of thinking which might be described as practical and pragmatic.

With reference to the UAE students' interests in engineering, the results indicated that females are more interested in this type of vocational interests than males. Again, this significant result $P \leq 0.004$ might be because females are trying to prove that these types of jobs are not restricted to males rather they can do it at the same level of proficiency. Furthermore, the UAE society gives females the same opportunity as the males to study such major. Table 2 further shows that male students are more interested than female students in medical jobs and in general, the UAE students' medical interests. The significant results could be explained by considering that medical jobs, specifically medical doctors, have a very positive reputation in the UAE society. As a result, most of the UAE students especially the males have that dream of being medical doctors in the future. However, female students realize that such jobs are not easy for them and that such specialization takes a lot of time and efforts before and after graduation. Regarding students' interests in tourism and archeology, Table 2 indicates that females are more interested in occupations related to such field. However, no significant gender differences were found. The affiliation with this type of interests could be understood by the fact that the UAE is one of the most important countries that people from different regions desire to visit as tourists. It can be deduced therefore that the UAE students feel the importance of this sector for their country and for their future as well.

With respect to UAE students' interests toward occupations related to law, Table 2 shows that both males and females have positive interests towards this field. This could be because of the usefulness of the job both economically and socially. With respect to students' interests toward having an occupation in the field of humanities, Table 2 shows significant differences between male and females students in terms of their interest towards this field. However, according to the descriptive statistics, both males and females do not desire to have an occupation in this field. This might be because the students are not familiar with the majors or specializations

related to the humanities. Consequently, more intensive vocational orientation should be performed for those students about these majors and their importance for the society, families, and the individuals as well.

Table 2 reveals a very vital result regarding the UAE students' interests toward having an occupation in the field of education. The reason for considering this result as very important is because of the existence of a stereotype in UAE society indicating that UAE students have very negative attitudes toward jobs in education. Despite the significant gender differences in favor of the females having a more positive interest toward educational jobs, the results are indicative of a positive change and outlook towards this field among the coming generation in the UAE. This could be because the UAE government and leaders of the Emirates are insisting on the importance of having UAE specialists in the field of education to achieve the vision and the strategic goals of the UAE. Similar results have been presented in Table 2 related to the UAE students' interests in information technology and artificial intelligence, as there are significant gender differences in favor of female students. The descriptive results show that both males and female students are interested in that file. The results were expected as technology and artificial intelligence represent the most central issue that is related to achieving the goals of the UAE in terms of innovation and knowledge management. Finally, Table 2 shows that male students are significantly more interested in occupations related to political occupations than female students. These results were predictable as political occupations required politicians to be most of the time out of the borders which is something that cannot be acceptable for females within the relatively conservative culture as UAE.

In general, the results are in consonance with the research literature which shows that gender differences can be considered as one of the most important issues in dealing with adolescents' vocational interests (Schulenberg, Goldstein & Vondracek, 1991).

Table2: Descriptive statistics and independent t-test results regarding gender differences in vocational interests

Type of interests	Gender	N	Mean	Std. Deviation	T	DF	Sig																																																																																																																																
Literary interests	male	866	12.2829	2.02347	-1.293	1918	.196																																																																																																																																
	female	1054	12.3975	1.85578				Military and police interests	male	866	10.4677	2.57547	-9.193	1918	.000	female	1054	11.5484	2.55333	Economic and real estate	male	866	11.2841	2.29554	-8.587	1918	.000	female	1054	12.1290	2.01383	scientific interests/Applied sciences	male	866	10.5069	2.36361	.861	1918	.389	female	1054	10.4118	2.44508	engineering interests	male	866	10.5162	2.25442	-6.113	1918	.000	female	1054	11.1414	2.20978	medical interests	male	866	11.2021	2.34967	8.097	1918	.000	female	1054	10.2818	2.57892	Tourism and Archeology Interests	male	866	11.8753	2.18151	2.093	1918	.036	female	1054	11.6641	2.21475	law Interests	male	866	11.3233	2.50629	1.101	1918	.271	female	1054	11.1945	2.58771	Humanities interests	male	866	8.6709	1.77562	5.842	1918	.000	female	1054	8.2343	1.49869	Educational Interests	male	866	12.0115	1.85481	-.080	1918	.936	female	1054	12.0180	1.67169	Information technology and artificial intelligence	male	866	10.7136	2.47881	-9.934	1918	.000	female	1054	11.7837	2.23600	political Interests	male	866	11.2021	2.34967	8.097	1918	.000
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Table 3 shows no indication of a specific pattern of development regarding the UAE students' vocational interests across all types of interests. In other words, the students' vocational interests toward any field could change as the students move from one grade to the next, however, their vocational interests towards a certain field might decline in the next class and so on. For instance, the mean of students' interests toward educational interests was 12.07 on the Ninth grade and it declined to 11.89 on tenth grade, then went up in the eleventh grade to 12.03 and to 12.11 on the twelfth grade. Similar random change without any systematic pattern of development had occurred across most of the types of vocational interests. This can be because the adolescent stage is characterized as unstable either in their thoughts, in their identity, or in their vocational interests. Thereupon, it is expected that the same student might change his/her vocational interests not only from grade to grade but he/she could have different interests in the same grade. However, vocational orientation is very

essential in this stage to help students to form their ideas about their future in a clear and healthy manner (Mitran & Pârvu, 2017).

Table3: Descriptive statistics of the UAE students' vocational interests according to grade level

		N	Mean	Std. Deviation
Literary interests	Ninth	227	12.4053	1.76584
	Tenth	608	12.1743	1.97577
	Eleventh	579	12.3074	2.04079
	Twelfth	506	12.5692	1.80652
Military and police interests	Ninth	227	11.3744	2.53922
	Tenth	608	10.8224	2.76505
	Eleventh	579	11.0432	2.53280
	Twelfth	506	11.2273	2.54887
Economic and real estate	Ninth	227	11.7577	2.10738
	Tenth	608	11.6316	2.19084
	Eleventh	579	11.7565	2.15276
	Twelfth	506	11.8735	2.24971
scientific interests/Applied sciences	Ninth	227	10.7093	2.90316
	Tenth	608	10.5576	2.31462
	Eleventh	579	10.2867	2.30330
	Twelfth	506	10.4091	2.38407
engineering interests	Ninth	227	11.0837	2.13007
	Tenth	608	10.8980	2.21485
	Eleventh	579	10.7271	2.27628
	Twelfth	506	10.8636	2.31379
medical interests	Ninth	227	10.4273	2.56383
	Tenth	608	10.8076	2.43954
	Eleventh	579	10.7047	2.51999
	Twelfth	506	10.6759	2.59048
Tourism and Archeology Interests	Ninth	227	11.8018	2.12661
	Tenth	608	11.7039	2.22340
	Eleventh	579	11.7547	2.19041
	Twelfth	506	11.8123	2.22638
law Interests	Ninth	227	10.9427	2.65598
	Tenth	608	10.9753	2.53952
	Eleventh	579	11.3696	2.53928
	Twelfth	506	11.5909	2.48653
humanities and social interests	Ninth	227	8.6388	1.67541
	Tenth	608	8.4819	1.62548
	Eleventh	579	8.3765	1.66893
	Twelfth	506	8.3399	1.61523
	Total	1920	8.4313	1.64343
Educational Interests	Ninth	227	12.0705	1.61420
	Tenth	608	11.8997	1.77149
	Eleventh	579	12.0311	1.77226
	Twelfth	506	12.1107	1.77764
Information technology and artificial intelligence	Ninth	227	11.6432	2.25390
	Tenth	608	11.2401	2.38230
	Eleventh	579	11.2401	2.40589
	Twelfth	506	11.2905	2.49923
political Interests	Ninth	227	10.4273	2.56383
	Tenth	608	10.8076	2.43954
	Eleventh	579	10.7047	2.51999
	Twelfth	506	10.6759	2.59048

The analysis of variance shown in table 4 indicates that there are no significant differences $P > 0.004$ in the students' vocational interests according to grade level. The only exception was in students' interests toward law where the results were significant $P \leq 0.004$. According to the results in Table 2, the students' interests in this field were increased systematically from grade ninth to grade twelfth. In general, the results in Table 4 do not agree with the results of some studies which showed that there is a statistically significant difference between students' grade level and educational and career interest scores (Kurbanoglu, & Arslan, 2015). The lack of agreement between the results of the current study and the previous studies may be justified by the differences between the selected samples and the cultural differences between the populations in these studies.

Table 4: One-way ANOVA of the UAE students' vocational interests according to grade level

		Sum of Squares	Df	Mean Square	F	Sig.
Literary interests	Between Groups	44.776	3	14.925	4.011	.007
	Within Groups	7129.591	1916	3.721		
	Total	7174.367	1919			
Military and police interests	Between Groups	71.099	3	23.700	3.470	.016
	Within Groups	13086.772	1916	6.830		
	Total	13157.870	1919			
property and commercial interests	Between Groups	16.276	3	5.425	1.136	.333
	Within Groups	9151.716	1916	4.776		
	Total	9167.992	1919			
scientific interests/Applied sciences	Between Groups	38.536	3	12.845	2.219	.084
	Within Groups	11093.522	1916	5.790		
	Total	11132.058	1919			
engineering interests	Between Groups	22.469	3	7.490	1.479	.218
	Within Groups	9701.563	1916	5.063		
	Total	9724.031	1919			
medical interests	Between Groups	24.202	3	8.067	1.271	.283
	Within Groups	12157.379	1916	6.345		
	Total	12181.581	1919			
Tourism and Archeology Interests	Between Groups	3.703	3	1.234	.254	.858
	Within Groups	9299.128	1916	4.853		
	Total	9302.831	1919			
law Interests	Between Groups	134.378	3	44.793	6.945	.000
	Within Groups	12358.109	1916	6.450		
	Total	12492.487	1919			
humanities and social interests	Between Groups	17.291	3	5.764	2.138	.094
	Within Groups	5165.634	1916	2.696		
	Total	5182.925	1919			
Educational Interests	Between Groups	13.567	3	4.522	1.467	.222
	Within Groups	5904.995	1916	3.082		
	Total	5918.562	1919			
Information technology and artificial intelligence	Between Groups	31.035	3	10.345	1.787	.148
	Within Groups	11092.963	1916	5.790		
	Total	11123.998	1919			
political Interests	Between Groups	24.202	3	8.067	1.271	.283
	Within Groups	12157.379	1916	6.345		
	Total	12181.581	1919			

Conclusion:

The results of the current study confirm the existence of gender differences among the UAE school students relative to their vocational interests. The results highlight a shift among female students who no longer feel that they have to abandon some occupations as these are meant for males. Different reasons may be behind this shift in preference such as the equal opportunity of getting high level of education for both males and females in UAE, the modern life and the active communications and connections with the different nations, especially with modern societies, and UAE vision of having capable citizens from both genders to participate effectively in the process of progress and prosperity in UAE.

With respect to the relationship between the UAE students' vocational interests and grade level, the results indicate that students' vocational interests do not change dramatically or significantly across ninth grade to twelfth grade. In general, the last results indicate that students' interests toward any field of the presented domains in ESVI-R can be considered relatively stable. The grade-level stability and gender-specificity of vocational interests raise some important questions that still remain to be addressed by research. This can include how vocational interests are formed; the drivers and influences on vocational interest among the youth; and how schools adapt to the changing interests of their students.

Finally, since vocational interests play an essential role in satisfaction and achievement, both in work and study (Boerchi & Magnano, 2015), more attention should be given to the development of vocational guidance programs in the different schools in the UAE that would address the vocational orientation of the students. Such service is very essential to achieve one of the strategic goals of UAE of having students willing to be qualified in all fields and being ready to venture into new and needed fields.

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