Adolescents' Perceptions of Exploring Professional Interests and Preferences using a Psychometric Tool

Zacharo Kouni, M.Ed.
Teacher, Ministry of Education, Greece

Marios Koutsoukos, Ph.D.
Adjunct Lecturer, Hellenic Open University, Greece

Abstract

The main objective of this research is to investigate adolescents' perceptions concerning professional interests and preferences. Nowadays, a major problem of the teenager is the choice of career path to follow. Vocational identity is an important aspect of individual identity that adolescents explore and are asked, in high school mainly, to choose an orientation group (general high school) or sector (vocational high school) and consequently the subject of study and field of work. Their decision to choose studies and profession is not easy. The teacher specializing in Counselingand Orientation has the opportunity to help adolescents to understand their personalities and interests, combining Counseling and the use of appropriate psychometric tools. The qualitative research, in which 19 students of the Third Grade of Lyceum participated, showed that they discovered, confirmed and reflected on issues of their professional identity, using the Holland Personality and Vocational Guidance test.

Introduction

Professional evaluation is the process of determining the interests, abilities and skills of an individual, in order to identify his professional inclinations, preferences, needs and career opportunities (Dimitropoulos, 1999). It helps the individual to make decisions and make realistic career choices based on his personality and the reality in the job market. In addition,

it helps counselors and employment professionals work more effectively with their clients in their professional development and career preferences.

Almost all career counseling theorists agree that career guidance may at some point include psychometric evaluation combined with non-psychometric methods that lead to the prediction, by chance, of the individual's success in education and careers and in proposals for studies, training or employment (Kantas, 2004; Kantas and Hantzi, 1991). Psychometric methods use various tests in order to quantitatively collect the required information. Non-psychometric methods also collect data on the characteristics or professional preferences of the individual, such as open free discussion in which the expressed interests of the individual for studies or professional preferences are detected (Dimitropoulos, 1999).

The development of professional identity is an integral part of the overall development of adolescents' identity. Although it is well known that professional interests and goals emerge in childhood, in adolescence they crystallize and stabilize and career goals and aspirations become more realistic in terms of adapting to personal and environmental characteristics (Hirschi, 2010). Involving adolescents in building and achieving at least a temporary professional identity is an important decision-making process and promotes their adaptation and positive development in the various career paths that open before them (Hirschi, 2011).

But in the process that aims to implement the above, adolescents need to be helped to get to know themselves, gathering as much individual information as possible. Orientation Counseling aims to help them understand their skills and desires and link them to their professional decisions and choices (Malikiosi-Loizou, 2004; Nkechi, 2016; Nweze & Okolie, 2014). A person according to Holland (Kantas et al., 1991) does not face career decision problems if he has clear interests and sufficient self-knowledge.

In this context, this paper's main target is to present the results of the application of Holland personality tests to adolescent students in the third grade of general high school in Eastern Thessaloniki, where the researcher teaches, as well as the experience gained. The questionnaire used is specific to Holland's Professional Self-Directed Survey of Professional Interests and Preferences (SDA).

The Professional Self-Guided Questionnaire of Professional Interests and Preferences is based on Holland's theory of professional development, according to which, a person feels pleasure and satisfaction from his professional choice, when the professional environment is more in line with his own personality type (Dimitropoulos, 1998 ; Cantas, 2004; Cantas et al., 1991; Dughi & Patcas, 2015).

In Holland's theory, people are classified into one of six characteristic personality types: the Realistic, the Investigative, the Artistic, the Social, and the Enterprising. and the Conventional. Also, there are six categories of professional environments and each of them corresponds to a type of personality (Dimitropoulos, 1999; Kantas et al., 1991).

According to Dimitropoulos (1999):

- The realistic type includes people who are efficient and methodical, persistent with skills of design, coordination, problem solving, perception of space and usually prefer technical, technological, mechanical and construction professions.

- The research type includes people who have the ability to observe, analyze, methodize, judge, understand data and data and prefer an environment that gives them the opportunity for activities related to systematic and innovative research, understanding and control of phenomena (natural, social, cultural, biological).

- The artistic type includes people who are idealistic, impulsive and imaginative, sensitive and unruly characters and prefer a work environment that allows them to show anti-conformity and independence.

- The social type includes people who are friendly, extroverted, solidarityand helpful, have social skills and are condescending, prefer a work environment that develops their skills for communication and cooperation.

- The business type includes people who have leadership and supervisory skills, are ambitious, energetic and ostentatious, prefer a work environment in which they will feel confident, popular, active.

-The conventional type includes people who are organized, conscientious, obedient, love order, pay attention to detail and perfection and prefer mainly employee professions.

Personality types are schematically classified at the vertices of a hexagon and those that are closer to each other show greater similarities compared to those facing each other in the hexagon (Dimitropoulos, 2004; Kantas et al., 1991). (Figure 1).
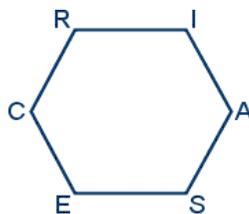

Figure 1. The hexagon of Holland
(R = Realistic, I = Research, A = Artistic, S = Social, E = Business, C = Conventional)

The questionnaire answered by the subjects ranked them in percentage among the six personality types and showed the career choices that best suit them. It is emphasized that in the present work the use of only the masculine gender does not contain or imply any distinction between the sexes, it simply refers, for the sake of ease of reading and space economy, to the human race, that is, to man.

Research Methodology
Participants

The research sample consists of 19 students who are in the last grade of general high school in Eastern Thessaloniki. Their age is 17-18 years. In terms of gender there are 12 boys and 7 girls. Their place of residence is close to the public high school they attend.

Procedure

The sample was selected from a total of 110 students of the third grade of the general high school based on the immediate desire and interest they showed to take the personality and career guidance test, in order to help them better understand their personality and which professions match it or to confirm what they already perceive about their personality and professional preferences (Kantas et al., 1991).

The research was conducted during a week in the school's computer lab, in four phases. In the first phase, the research subjects were interviewed about their professional preferences. In the second phase, they were asked to answer the 214 binomial choice questions ("yes" - "no") in the four fields-sections in the online personality questionnaire and professional guidance "Holland personality test". In the third phase, they carefully studied the conclusions drawn from the online test based on the answers they gave to the questions in the four fields. In the fourth phase, they discussed the results with the teacher-researcher and how they perceived the test results at the level of personality type and proposals for professions. Finally, they got the test results printed for future reference and use.

Before completing the questionnaire electronically, the participants were informed about the research topic, its objectives and the process of its completion was described. They were also informed about some basic elements of Holland's theory, in order to understand the interpretation of the results. It was also mentioned to the subjects that both the test results and the results of the research would be done in secret and would be used both for reflection by the subjects themselves and for counseling discussion between the teacher and the subjects and only with their consent. Finally, the participants were reminded that the test results will be only indications and not an absolute diagnosis, which they can use to further explore their personality and professional interests, in order to decide what is best for them in personal and professional level.

Main questions

In the interview the participants were asked to answer two main questions. The first question: "*What are your professional preferences*?" emerged from the theoretical framework of the research, had the character of introspection by the subjects of the research for their professional preferences and was answered before the completion of the online test. In this way, on the one hand, the subjects of the research would already be prepared to answer the second question more consciously, and on the other hand, the reliability of the

test could be tested (Cohen, Manion & Morisson, 2008). The second question: "*How do you comment on the test results?*", Therefore, had more of a reflective character and was answered after completing the online test.

Professional Assessment Tool

To find a professional assessment tool, the researcher looked at school Vocational Guidance textbooks, on Greek, English and American websites, in order to be initially informed about psychometric instruments that are circulating, their suitability and how to use them properly.

Finally, the tool used in the research was the online personality and professional guidance questionnaire "*Holland personality test*" (Holland Personality and Vocational Guidance test. https://paroutsas. jmc.gr/ iqtest/ orient2. htm), which is specific to the SDS Self-Directed Search tool Search) built by Holland.

The manufacturer points out that it is based on Holland's theory, is a combination and translation of American websites and an attempt was made to adapt to the Greek data, without being an accurate scientific tool (Holland Personality and Vocational Guidance test. https://paroutsas.jmc.gr/iqtest/orient2.htm). The user of the test completes four fields-sections that refer to: a) Capabilities (1-36: 36 questions), b) Professional interests (37-78: 42 questions), c) Hobby Activities (79-137: 59 questions) and d) Self-Esteem-Character (138-214: 77 questions).

The tool was therefore selected by the researchers based on the following criteria: a) it is easily accessible on the internet, b) it is in Greek, c) it can be completed by many users at the same time, d) it immediately gives the results of matching personality type and professions, without the need for elaboration by the researcher and e), according to Holland the SDS can deal with cases where either the person wants to come up with professional directions that suit him and have the perspective they want or seeks confirmation for an idea he has (Kantas et al., 1991). The researchers were also aware that the reliability and validity of the test was unknown and explained to the participants that the results would be indicative only.

Quality research tool

Interviewing as a qualitative research tool is one of the most common practices for generating knowledge in social sciences, it allows the collection of data in greater depth than in the case of other methods with direct impact and communication between interviewer and interviewee as well as the possibility for clarifications and explanations (Cohen et al., 2008; Given, 2008; Dimitropoulos, 2001).

The interview in the present study was semi-structured with predefined open-ended questions, so that on the one hand there is more control over the interview issues by the researcher than in an unstructured interview, and on the other hand there is flexibility for the researcher to go deeper or clarify, without limiting the specific percentage of responses to each question (Given,

2008; Iosifidis, 2008). In combination with the results of the professional evaluation test, it contributed to a better understanding of the research problem and its approach in a global way (Creswell, 2012 · Mason, 2002).

Results

The processing of the recorded answers to the first question "*What are your professional preferences*?" based on the type of personality that won the majority in the three-digit code Holland (Self-Directed-Search. https://www.acer.org/files/SDS _ Sample _ Report.pdf; http://www.wiu.edu/ advising /docs/ Holland_ Code.pdf), the which was attributed to each profession declared by the participants. Participants belong to the social type (S) at a rate of 32% (2 girls and 4 boys), to the business type (E) at a rate of 42% (3 girls and five boys), to the realistic type (R) at a rate of 10.5 % (1 girl and 1 boy), in the conventional type (C) 5% (1 boy), in the research type (I) at a rate of 10.5% (1 girl and 1 boy) and in the artistic type (A) no child (0%). (Figure 2).

C= Συμβατικός, E= Επιχειρηματικός, I= Ερευνητικός, R= Ρεαλιστικός, S=Κοινωνικός

Figure 2. Distribution of personality types of research subjects in the hexagon of Holland (E = Business, S = Social, A = Artistic, I = Research, R = Realistic, C = Conventional)

The results largely agree with those given by the online test based on the first personality type. Therefore, in the social type (S) were classified 3 girls and 6 boys, i.e. 47% of the participants. In the business type (E) were classified 3 girls and 4 boys, i.e. 37%. In the realistic formula (R) was classified 1 boy, i.e. 5% of the participants, in the conventional formula (C) was also classified 1 boy, i.e. 5% of the participants, in the research formula (I) was classified 1 girl, i.e. 5% of the participants and in the artistic type (A) no children.

Taking into account the three highest scores in the respective formulas, the three-digit Holland letter code (https://www.acer.org / files / SDS _Sample_Report.pdf; for each participant was obtained (Chart 1).
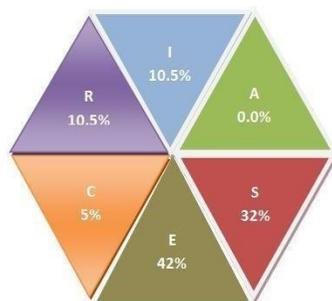
Chart 1. Distribution of students based on the three-digit Holland code
(Guide to Holland Code. http://www.wiu.edu/advising/ docs/Holland_Code.pdf)

To process the recorded answers to the second question, the content analysis technique was used, since the question asked was open-ended. The categories of analysis were defined, the reports were measured and quantified, so that the qualitative data can be converted into quantitative (Iosifidis, 2008). From the thematic analysis of the qualitative data of the answers to the 2nd question "How do you comment on the test results?" the following three categories emerged: a) category 2.a. "Test evaluation" with subcategories 2a1. "duration", 2a2. "completeness", 2a3. "formulation of questions" and 2a4. "utility", b) category 2b. "Acceptance of the test by the student in relation to the type of personality", with subcategories 2b1. "I strongly agree", 2b2. "I agree a little" and 2b3. "Acceptance of the test in relation to the profession", with subcategories 2c1. "I agree a lot", 2c2, "I agree a little" and 2c3. "I do not agree at all."

The counting of reports in each subcategory for categories 2.b. and 2.c. respectively, shown in Tables 1 and 2.

Table 1. Category 2.b. "Acceptance of the test by the student in relation to the type of personality"

Subcategories	Frequency	Percentage (%)
2β1. I strongly agree	16	84.2
2β2. I agree a little	3	15.8
2β3. I do not agree at all	0	0.0
Total	19	100.0

Table 2. Category 2.c. "Acceptance of the test by the student in relation to the profession

Subcategories	Frequency	Percentage (%)
2c1. I strongly agree	14	73.7
2c2. I agree a little	5	26.3
2c3. I do not agree at all	0	0.0
Total	19	100.0

From the answers given by the students regarding their acceptance in relation to the type of personality and in relation to the profession, it appears that the majority of students, in percentages of about 84% and 74% respectively, perceive the test as reliable. Indicative answers for subcategory 2b1: "*According to the test I am a more practical and research type, which I believe represent me.*" (Code 1) / "I consider that the results in terms of personality type were successful." (Code 8) / "The characteristics of my personality are mostly what is written ..." (Code 15) / "At the same time, I believe that the results in the personality types correspond to the idea I have of myself. (Indicative answers for subcategory 2c1.: "*As for the results it was something I expected, but also in terms of the professions that suit me.*" (Code 2) / "*The test recognized the job I would like to follow* "(Code 6) /" *The test results were exactly with the professions I would like to follow in the future* "(Code 10) /" *The test largely agreed with my (professional) desires ...* " (Code 11).

It should be noted that for the boy with Code. 17, although he does not recognize that he has the type of personality "social" that the test showed, but observing his behavior in school, it is found that he leads group activities (choir leader) and is polite and compassionate, according to the teachers who cooperate with him, as he is also responsible for his obligations. He also agreed a little with the professional choices shown by the test. In a discussion that the researcher had with the student of his own free will, it was found that he accepts influences from his family environment regarding his professional choices (Clutter, 2010; Dughi et al., 2015; Oymak, 2018). He added: "*I do not think I am that social, but as the test says, I like leading group activities, I am responsible, polite and compassionate. I do not strongly agree with the possible professions I can pursue [according to the results of test], because I am more interested in professions of a more research type*".

Also, a girl (Code 16) and a boy (Code 1) stated that although the test achieved their personality type, the professions suggested by the test do not

consider them suitable. They testified: *"... I believe that the results in personality types correspond to the idea I have of myself. But in my opinion a large percentage of the professions he took out (the test) is not based on what I want to do in my life*." (Code.16) / "*The test approached my preferences to a satisfactory degree. According to the test I am a more practical and research type, which I believe represent me. However, there are other activities (professions) that interest me that are not classified in the perfectly suited (professions), a fact that causes me concern.* " (Code 1).

Conclusions

Choosing a career remains a constant challenge for adolescent high school and college students, who will either study and then pursue a career or receive vocational training, but also for teachers / counselors who can provide counseling. support (Kouni & Koutsoukos, 2019). Together counselors and counselors seek a career decision-making process, as choosing a career through a large and challenging set of opportunities is a problem for young people (Geldard, Geldard & Yin Foo, 2019; Kimongo, Kindiki & Misigo, 2016).

The 19 students came willingly to take the personality and career guidance test either because they wanted to find out more about their personality type and the professions that suited them or because most wanted to confirm their ideas for career choices.
Participants showed no anxiety during the test, as they were informed about what they were going to do and what kind of results were expected. They asked the teacher for help only when they did not understand some terms (idealist, conformist, structured, insightful) in the questions more than the 4th field "Character". They showed as much attention as needed to understand the questions, as they wanted to have results as reliable as possible. They showed the same attention in reading the results concerning their type of personality and the professions that suit him.

The majority of participants were satisfied with the process and agreed that the results for their personality type were what they expected, as well as many of the proposed professions agreed that it was their choice. Still, some of the participants were satisfied that the test helped them to add other professions to their choices. Two of the participants asked to discuss further with the researcher, to help them more in their educational and professional decisions based on the test results.

Research implications

The test of the personality test and professional guidance, gave the participants the opportunity to discover, to confirm, to reflect on elements of their personality and professional choices. The personality of the adolescent secondary school student and his needs not only should not be overlooked or underestimated, but should be a pole of respect and their promotion and satisfaction should be sought with the support of the teacher in a role of Counseling and Orientation.

Also, the results of the present research confirm that the state and the school need to take a closer look at the concerns of adolescents about their educational and professional future, and help them in self-knowledge, understanding the labor market and making good decisions by operating structures and Vocational Guidance programs.

Suggestions for future research

In school, the adolescent must, on the one hand, acquire basic skillsand abilities that will be adapted to any future situation and will facilitate his professional prospects, and on the other hand, must be prepared psychosocially, in order to cope with difficult and uncertain conditions. In this context, it is useful to investigate whether the school meets this role.

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