The use of Computerised Psychometric Tests of Vocational Guidance as self-awareness tool during the Process of Studies and Profession choice Case study of the Vocational school of Tyrnavos, Greece

Author
Zygouris Konstantinos
Mechanical Engineer PE12.04, Teacher, Vocational School of Tyrnavos
kostislf@yahoo.gr

Abstract
In the present proposal we present both the use of the computerised psychometric tests within the rage of School Vocational Guidance (SVG subject), as well as the theoretical framework that supports the necessity of these tests. In this case study we present the implementation of the potentials of the Web Portal of National Organisation for the Certification of Qualifications & Vocational Guidance (E.O.P.P.E.P.) via the vocational tests applied to the Vocational School of Tyrnavos, as well as the contribution of such innovative tools towards the accomplishment of students' self-awareness and realisation during the process of studies' and profession's choice. We also present the problems, the solutions, the inter-disciplinary associations that emerge and the horisontal skills that also acquired through the use of these tools, creating in this fashion, an added value in actions of such kind, beyond the obvious outcome from this particular subject.

Key-words: School Vocational Guidance, psychometric tools, E.O.P.P.E.P. , Vocational School of Tyrnavos, self-awareness, orisontal skills

JEL classifications: Labor and Demographic Economics, Demand and Supply of Labor, J24 & J28

Introduction

The necessity to promptly inform secondary education students of their professional or academic options has long been recognized by the Greek state, as evident in the 1976 introduction of Vocational Guidance courses in Gymnasiums (SVG, article 28 Law 306/1976). Despite the numerous regressions it has temporally undergone through several ministerial decrees and directives, such as the most recent one of January 2014 (Ref. No. 2170/G2 09-01-2014), the state has long expressed an increasing interest in the development of self-awareness and self-consciousness amongst students, as demonstrated by the specific provisions of law 1566/1985. This interest, however, has for many years been confined to ventures that merely present options offered by both formal and informal education. The task of discovering tools that facilitate the development of self-awareness and promote personal preferences and characteristics as the drivers behind informed vocational choice has been left to students

themselves (Wager et al., 2014). Therefore, this combined model of education and vocational guidance, which is based on matching performance assessment and personality aspects within the job market context, appears to be rather unfortunate and untimely (Kosmidou-Hardy, 1996) – even more so when the job market is complicated and under constant flux. In light of these observations, a series of psychological tests have been used within a framework that brings together vocational counseling and guidance (Kantas, 2002) so as to identify inclinations, skills and potential or even personal viewpoints and beliefs that can help individuals make appropriate professional choices.

The process of implementing these tests occurs via two stages. The first stage is to inform students of their existence and usefulness and the second is to present them to students so they can take them. The first stage can be accomplished with the help of teaching staff, who can simply inform students of the tests' existence. The second stage occurs at local vocational advice and guidance centres (KESYP). However, its accomplishment is faced with a number of accessibility issues, which the centres are not responsible for. These problems are of practical nature and relate to the number of students that centers have the capacity to accommodate as well as the distance that students in remote areas have to cover so as to reach centres, which are located in large urban areas. In order for these problems to be tackled, a series of innovative solutions using new technologies and the Internet was implemented, which helped reform and redesign established teaching approaches within the set regulatory framework. The contribution of these innovative tools, such as the digital portal of EOPPEP, the National Organisation for the Certification of Qualifications and Vocational Guidance, as well as the Internet, was decisive in that it offered each student the possibility to both be directly informed of (a demand of the first stage) and experience these psychometric tests in order to increase self-awareness levels and improve the process of rational decision-making towards each student's conscious transition to their educational and professional goals (Fotiou & Parastatidis, 2013).

The portfolio of vocational guidance tests used consists of three separate tests:

- Test of professional interests (TEPE)
- Test of professional decisions (TEPAP)
- Test of professional values (TEPAX)

Tests were administered to students as part of their vocational guidance course (SEP) and assessed by the representative of the Larisa vocational guidance centre, Ms. Nina Galani. It should herein be noted that the centre of Larissa had participated in primary research commissioned for the development of these tests by the Pedagogical Institute as part of the European 3rd Community Support Framework (EPEAEK, 2015; Hatzi & Hatzistamatiou, 2006-2007).

This paper aimed to outline the theoretical background behind these tests as well as their implementation process; one that focuses on both problems and their solutions, the skills attained by students and the interdisciplinarity that it can help develop. Further, it sought to advance debate so that more innovative actions could be undertaken

towards the development of students' self-awareness and self-respect within the core areas of vocational guidance courses.

Theoretical background of Vocational Guidance tests

John Holland's Hexagonal Model and tests of professional interests

The theoretical framework that tests of professional interests derive from is reflected in the findings and theory of the descriptive hexagonal model of vocational interests, which was initially incepted and developed by John Holland (1959) so as to elaborate his views of occupational choice and development. Holland's model (1992) basically refers to the conventional matching between the individual and the environment. Specifically, Holland assumed that vocational choice reflects aspects of personality and could, therefore, be used to describe it. The basic principles this theory is based on are:

- Vocational choice constitutes an expression of personality.
- Members in a professional group have similar personalities and personal development histories.
- Because professional group members have similar personalities it is anticipated that they will respond in similar manner to various problems and conditions.
- Professional satisfaction, stability and success directly relate to the degree of accordance between the individual's personality and their occupational environment.

Holland's paper (1973) on individual personality focuses on the study of personality types (typology), whereby each person falls under one amongst six basic personality types proposed. These six types of personality are: Realistic (Doers), Investigative (Thinkers), Artistic (Creators), Social (Helpers), Enterprising (Persuaders), and Conventional (Organizers) (Figure 1).

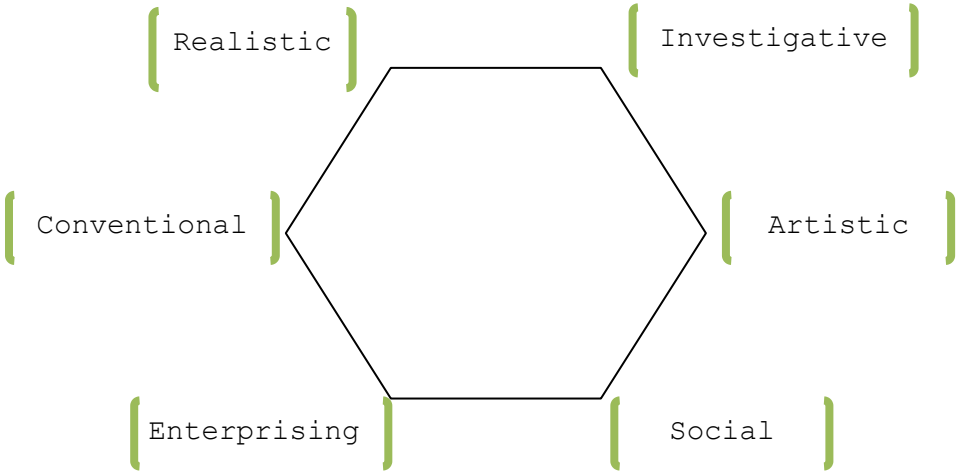

Figure 1: Holland's hexagonal model (1992) for the personality types (source: Kosmidou – Hardy, 1994, 2005)

The Euclidian distance between different personality types, as demonstrated in the hexagonal graph, relates to their psychological similarity (for example, the Investigative type is more similar to the Realistic and Artistic type than the Enterprising type). Respectively, there are six categories that professions fall under (Realistic, Investigative, Artistic, Social, Enterprising and Conventional professions), each corresponding to one of the aforementioned personality types as described by their own unique properties and characteristics. The more a person resembles one of those personality types, the likelier it is that they will display behavior and characteristics that associate with it, which, in turn, makes it probable that they will perfectly adjust to the respective professional environment. Holland's theory (1992), predicts that individuals seek environments that are compatible with their skills and interests, allow them to exercise their skills and express their values and involve duties that they find stimulating. In other words, each person will pursue and feel more content in professional environments that correspond to their personality type.

Test of professional values

One of the most commonly known positions regarding what 'values' stand for, is that which describes them as stable views on what is considered fundamentally right or wrong (Rokeach, 1973). Alternatively, values refer to the preferences or needs people have for specific outcomes or conditions (England, 1967). Values are criteria one uses to determine how much they desire specific actions or motives that define their lives and can further be considered as the cognitive facets of human needs (Bilsky & Schwartz, 1994; Locke, 1976; Rokeach, 1973). In contrast to attitudes, which are specific and pursue objective goals relevant to the individual, an activity or a material gain, values exceed such set frameworks (Rokeach, 1973). The overall nature of values positions them in the core of an individual's psychological identity (Ball-Rokeach, Rokeach & Grube, 1984; Bilsky & Schwartz, 1994). Therefore, values constitute a vital component in the understanding of an individual's motives (Locke, 1991).

As far as professional or occupational values are concerned, they refer to what the individual wants from their work and the compensation they would expect to receive from it and not to what they consider good or right to pursue when choosing a specific career path (Pryor, 1979). Kidd and Knasel (1980) concur with this view and propose that each value is made up from an emotional and an assessive component. The emotional component refers to what the individual desires of prefers. The assessive component, on the other hand, focuses on the internal need to achieve an outcome; In other words, on what each person believes they should pursue. In contrast, however, to Pryor's (1979) definition, the common everyday use of the term 'professional or occupational value' as well as of 'value' as a broader term is more often dictated by the assessive component as opposed to the emotional one. In other words, the internal need to achieve an outcome is taken more into account while desires and preferences are seemingly ignored.

Furthermore, occupational values can be defined as the general beliefs regarding the extent at which one desires (desirablity) specific traits-characteristics of a job (payment, independence, working environment) and specific job-related outcomes (achievement, completion and prestige). Similarly to overall values, professional values function as criteria,

which an individual uses in order to choose work-related behaviors and goals. Research has demonstrated that overall values are separate from professional ones though concurrently remaining related conceptual structures (Elizur & Sagie, 1999; Sagie & Elizur, 1996). Professional values derive from the broader structure of overall values (George & Jones, 1997; Roe & Ester, 1999).

Specifically, Katz (1973) proposes that professional choices can be considered as preferences for occupational frameworks that allow or encourage the expression of particular values or entire value sets. In particular, he defined the hierarchy of professional values as the compensation individuals seek in their profession, which constitute a decisive factor in choosing a professional career path. Moreover, Vroom (1966) concluded that individuals make occupational choices based on their professional goals. Some of these goals always surface in light of the values that individuals possess (i.e., development opportunities), a fact that reinforces the suggestion that professional goals dictate the professional choices that individuals make. Super (1995), on the other hand, in an interpretative approach to professional values that stems from theories of occupational behavior, confirmed the view that professional values are the end result of a socialization process whereby individuals learn socially acceptable ways to express their needs. He regarded values as an integral part of an individual's personal and professional development, which they try to acquire through the responsibilities they undertake, the ventures they make and their lifestyle altogether. For this reason, he placed values within a broader framework, which encompasses the needs, the personal characteristics and the interests of the individual. Subsequently, values are the targets one sets for themselves so as to succeed and satisfy their needs system.

Test of professional decisions.

Making educational and professional choices is of decisive importance to one's lifecourse, especially since they entail the parallel adoption of a compatible lifestyle. The respective contribution of vocational guidance courses to this process is of great importance, even more so since the Greek reality places the dilemma of choosing between professions on young Greeks at a very early stage. It could be said that vocational guidance courses should constitute a complete system, which could timely offer students the appropriate awareness levels as regards the issues of educational and professional routes, facilitate access to all relevant information, assist students in their personal, psychological and professional development as well as help them use that awareness in decision making. Two important points in the overall progression course is the development of self-awareness and the learning of the roles that correspond to professional positions (Kantas & Hantzi, 1991).
As part of the analysis, interpretation and definition of the course towards decision making, one could discern the following stages, which aim at enhancing the skills for appropriate decision making (Hazler & Roberts, 1984; Egan, 1994; Van Esbroeck, Butcher, Broonen & Klaver, 1997):

1 Detecting, investigating/predicting of the number of alternative choices offered to individuals.
2 Collecting and assessing information relevant to potential outcomes so that choices can be narrowed down.
3 Choosing based on desired outcomes.
4 The stage of trialling, founded in real circumstances.
5 Enrichment of relevant information.
6 Decision pursuance, based on the assessment of the outcomes of previous choices.

The decision making process seems to commence with the definition of the desirable target and its elaboration. Information collection occurs through relevant conversations with peers, friends, parents and teachers, the study of printed and online materials as well as the media. A successful evaluation and analysis of this information leads to the clarification and understanding of the variety of alternative choices/suggestions existent in each case. Some individuals are able to swiftly make a choice while others need to dedicate more time in the detection and understanding of information before they are able to make a choice. In either case, after the individual has chosen, they 'commit', devise an 'action plan' and act accordingly. Finally, they redefine or redesign the whole process in cases where issues are identified during the implementation process.

It is worth noting that professional decision making requires clarity, method, analytical and critical thinking. It is a process that aims at developing a system of logical thinking, by which individuals can make career decisions that fit their values, goals, interests, skills, personal characteristics and expectations at the lowest possible cost. The process is facilitated through the enhancement of self-awareness (expectations, professional values and preferences, personal traits and skills, motivation for work). Encouraging young persons towards taking initiatives and professional decisions (team work skills, assertion, negotiation and conflict management skills) is also of major importance.

The Vocational Lyceum (EPAL) of Tyrnavos case study

Identity of the vocational guidance test

The specific test, in its current form, was designed in the period between 2006-2007 by the Pedagogical Institute as part of an initiative titled 'Investing in humans: Development of methodology and application of modern Vocational Guidance tools and counselling services', within the framework of the European 3rd Community Support Framework (EPEAEK II). It constitutes the revised edition of its older format. This revised edition is the result of longitudinal research efforts and statistical analyses. It was completed following two research stages (pilot and final) across a larger, more representative sample of Greek students and a new weighting so as to determine its credibility and validity (EOPPEP, 2015). The test is embedded in EOPPEP's digital portal for young persons at the address www.eoppep.gr/teens.

The vocational guidance test unit used consisted of three separate tests:

- A test of professional interests (TEPE) consisting of 64 statements measured on a 4-point Likert scale, which takers have to express their extent of agreement (I like it a lot) or disagreement (I do not like it at all) with. Statements are expressed in a 'Dealing with…', 'Working at…' factual manner.
- A test of professional values (TEPAX) consisting of 64 statements measured on a 5-point Likert scale, which takers have to rate in terms of how important (Very important) or unimportant (Not important at all) they are to them. Statements are expressed in a 'I would like a type of job where…' factual manner.
- A test of professional decisions (TEPAP) consisting of 23 statements measured on a 6-point Likert scale, which takers have to rate in terms of how much each statement expresses their feelings (This totally reflects how I feel) or not (This does not reflect how I feel at all). Statements are expressed in a 'My parents often disagree...' and 'My interests constantly change...' factual manner.

It should be noted that while the statements in the first two tests, TEPE and TEPAX, require that takers think and express their 'wants' and 'desires', the third test, TEPAP, asks of the takers to:

- Think and answer in a way that demonstrates their skills in defining their professional interests (they are not required to state a specific profession, only whether they have taken steps towards making a decision).
- Define themselves, on that specific moment, the importance they believe that work will play in their life.
- Think and answer in a way that demonstrates the importance of the acceptance/approval or rejection of their choices by their social environment as evident in their interaction.

Implementation process

Vocational guidance tests, as available on EOPPEP's digital portal for young persons, were introduced to the curriculum of vocational guidance courses over the last two years as a parallel activity. They were administered across the departments of technical studies. A class of 20 students took the tests in the school year of 2013-2014 and three more classes with an aggregate of 54 students did so in the school year of 2014-2015. The following procedural steps were taken:

Step 1: presentation of the TEP tests and briefing of students on their existence and type of questions included.
Step 2: set up of a email address for every student.
Step 3: set up of an account in the EOPPEP portal for every student.
Step 4: individual participation in each test (TEPE, TEPAX, TEPAP) of every student.
Step 5: scores assessment on school premises through individual meetings with the representative of the Larisa vocational guidance centre (KESYP).

Problems during the implementation process

The problems that were encountered during the implementation of this activity revolved prσmarily around two axes. The first one relates to

the use of the school's three laboratories, whose use was not denied but were unavailable mainly due to their concurrent use by informatics classes as well as research activity taking place therein at the time. This was, effectively, a problem of time efficiency. The second problem was the reluctance displayed by students themselves towards both the idea of being 'tested' as much as to that unfamiliar to them concept, alongside an unprecedented lack of skill in using personal computers. A further problem was the nominal participation of students, which classified their results as personal data and, therefore, excluded any possibility of conducting further quantitative analyses. As a result, any overall conclusions could only be approximate and qualitative, not quantitative.

Achieved solutions

A solution to the aforementioned problems and, specifically, that of the lack of available computer labs was found with the help and willingess of colleagues, the school's management and its secretariat who kindly offered two computers for the conduct of the session and the administration of the test. One computer was located in the teachers' room and the other in the secretary's office. It is possible that this solution may have affected the tests' completion timescales; however, it came with two added benefits. The first one was the supportive stance held by management and colleagues, which helped create a positive environment between students and teachers, with teachers being present and participating at times in the session. The second was the set up of a support group in every class by students, who were familiar with the use of personal computers and assisted in the set up of email addresses and accounts on the digital portal of EOPPEP for students who did not have such skills. Email addresses and digital accounts were set up on the computer at the teacher room while test administration was conducted on the secretariat computer. That way, the parameter of administering the tests in a stimuli-free environment was met (it was expected that comments by students during test administration would be inevitable had the process taken place in one of the school labs for each class as a whole).

The set up of support groups had an impressive effect on the acquirement of skills (creating email addresses, adopting a logical, linear process for their creation, etc.) by other students as well. It should be noted that those teams came together through students' own initiative (while the initial, probably wrong, intention was for students to be assisted by their teachers). Moreover, we should refer to the contribution of colleagues in the field of informatics, who allocated time out of their own lesson so as to help students who had not timely completed the registration process do so.

As regards the reluctance initially demonstrated by students, it promptly dissolved following the completion of the tests by the first takers, who were able to answer their classmates' queries and describe the test items in a subsequent discussion.

Results

Results for the whole procedure can be divided in three categories. The first one relates to the conditions within each group (class), the second

one to individual perceptions for each student and the third one to the levels of cooperation between colleagues of different faculties.

As regards the first category of conditions within each class, the results indicated:

- The development of rapport between students in every class (it should be noted that students from schools in different areas attend the Tyrnavos EPAL and, naturally, they do not know each other).
- The development of a spirit of collaboration and mutual assistance between students (which is important given that a high number of those students came from various ethnic backgrounds).

As regards the student-specific individual perceptions category, the results indicated:

- An increase in the rate of students' self-awareness via three factors. The first factor would be conscious thinking (through relevant test cues). The second factor would be the free expression of this thinking (assessed via test answers) without any external interference that could affect it. The third factor would be their individual discussion on the assessment of test results with the Larisa KESYP representative.
- Acquirement of particularly useful computer literacy and Internet skills, especially as they were developed through student collaboration.
- A boost in self-respect, which stems from the two aforementioned findings relevant to the increase of self-awareness and skills acquirement.

Lastly, as regards the levels of cooperation between colleagues of different faculties, the findings we also positive:

- The new action exemplified the dimensions that interdisciplinarity can take through the collaboration of colleagues in the informatics faculty, who implemented supportive activities in their lesson. That dimension was expanded through the pilot compilation of professional imprints for students in one of the classes with the collaboration of Ms. Maria Diavati, a colleague from the informatics faculty, who used this paper's findings as a basis for the presentation and use of tools allowed by the analytical curriculum in her lesson structure.
- A collaboration opportunity was given for the design of a common timescale and the exchange of views on joint student work monitoring, which contributes to the understanding of particularities across lesson topics.

Conclusions

It can eventually be concluded that the existence and use of such innovative tools by schools can only benefit their students, as made evident by the three aforementioned findings. This assumption is further reinforced by two more observations. Firstly, vocational guidance tests (TEP) do not simply function as diagnostic tools but can further strengthen an individual's personal development and self-awareness when used appropriately (Anastasi, 1988). Secondly, vocational guidance counselors regard both the counseling process and vocational guidance

tests as a foundation of the developmental process, whose aim is the personal as well as social development of the individual (Kosmidou-Hardy, 1996). The particular importance of introducing vocational guidance tests to the schooling process becomes clearer by taking into account that, alternatively, students can only become acquainted with those tests through scheduled individual appointments at prefectural vocational advice and guidance centres (KESYP).

It should at this point be stressed that the implementation of such practices by colleagues in their work does not, under any circumstances, substitute the role and work of the vocational guidance counselor. The teacher's role is to inform, present and encourage students to use such tools in a manner that is supportive to the role of counselors, who are also responsible for the assessment of TEP results.

By adopting TEPs, schools manage to increase the number of students that familiarize with self-awareness tools and, therefore, lay the foundation for students to consciously choose what is best for them and ensure high levels of satisfaction in their adult lives as a result of the profession they will choose to follow.

Assuming that one of the primary targets of every educational system is to enhance and develop students' personalities, it is evident that the use of such innovative tools supports any efforts to achieve them.

The continuation of efforts to employ such innovative actions could further take these next steps:

- The expansion of EOPPEP's digital portal to include a personalized folder for every student through a relevant application.
- The continuation and expansion of professional imprints at pilot level through the collaboration of colleagues in the informatics faculty so that a consistent, interdisciplinary pool of data can be maintained.
- The discovery of ways to quantitatively analyse TEP results so as to build profiles for school students and, as a result, investigate the use of appropriate motivational stimuli towards them developing interests, taking initiatives and participating in their implementation.
- Lastly, it would be interesting to re-administer TEP tests in subsequent classes so as to investigate changes in thinking patterns and the levels of self-awareness that students reach over time, as well as the use of their experiences.

Above all, however, relevant software applications and assistive tools should not be considered as panacea for they cannot substitute personal contact as the way to disseminate not only knowledge but also ethics as well as provide cues that can eventually form sets of values - something that comprises the leading innovative educational approach ever since the times of ancient philosophers.

Limitations and suggestions for further research

A limitation of the present study derives from the fact that the quantification of the TEP results was not possible, as submitted through the EOPPEP digital portal. This limitation is caused by the format of the

digital portal, which requires the insertion of personal data to the account created for every student as already mentioned. Overcoming the issue of personal data inclusion would allow for further quantitative analysis of TEP results.

Moreover, the retake of TEP tests in subsequent grades or their early implementation, in hand with the removal of the personal data imposed restrictions, could facilitate both the quantitative analysis of data as well as future research. Furthermore, it could investigate the reasoning development and maturation process in every student personally and yield assumptions relevant to the culture of their school unit as already mentioned in the conclusions section.

References

Anastasi, A., 1988, *Psychological Testing (6th Edition)*, New York, MacMillan Publishing Company

Ball-Rokeach, S.J., Rokeach, M., and Grube, J.W., 1984, *The Great American Values Test: Influencing Behavior and Belief through Television*, New York, Free Press

Bilsky, W. and Schwartz, S.H., 1994, "Values and Personality," *European Journal of Personality,* 8(3), 163–181

Elizur, D. and Sagie, A., 1999, "Facets of Personal Values: A Structural Analysis of Life and Work Values," *Applied Psychology: An International Review,* 48(1), 73–87

England, G., 1967, "Organizational goals and expected behavior of American managers," *Academy of Management Journal,* 10, 107-117

Egan, G., 1994, *The skilled helper (5th Edition),* Pacific Grove, ca: Brooks/Cole.

Fotiou N., Parastatidis K., Φωτίου Ν., March-June 2013, "The Internet in the service of Vocational Guidance," *EL.E.SY.P., Vocational Guidance Review,* 101: 143-146

George, J.M. and Jones, G.R., (1997), "Experiencing Work: Values, Attitudes, and Moods," *Human Relations,* 50(4), 393–416

Hatzi S. and Hatzistamatiou M., 2006-2007, Psychometric Tools – Vocational Guidance Tests, Athens, Pedagogical Institute.

Hazler, R.J. and Roberts, G., 1984, "Decision-making in vocational theory: evolution and implications," *The Personnel and Guidance Journal*, 62, 408-410

Holland, J.L., 1959, "A theory of vocational choice," *Journal of Counselling Psychology,* 6, 35-45

Holland, J.L., 1973, *Making vocational choices: A theory of careers*, Englewood Cliffs, NJ: Prentice-Hall.

Holland, J.L., 1992, *Making vocational choices*, Odessa, FL: Psychological Assessment Resources, Inc.

Holland, J.L., 1992, *Making vocational choices: A theory of vocational personalities and work environments (2nd Edition)*, Odessa, FL: Psychological Assessment Resources

Kantas, A., 2002, Counselling and Vocational Guidance, Theory and Practice, Athens, Typothito, Giorgos Dardanos

Kantas, A. and Hantzi, A., 1991, Occupational Psychology, Theories of Professional Development, Counselling Elements, Athens, Ellinika Grammata

Katz, M., 1973, "The name and nature of vocational guidance," In H. Borrow (Ed.), "*Career guidance for a new age,"* Boston, Houghton Mifflin Co

Kidd, J.M. and Knasel, E.G., 1980, "Work values and work salience: A review of British and North American research," Hertford: National Institute for Careers Education and Counselling.

Kosmidou-Hardy, H., 1996, The Timeliness of School Vocational Guidance aims within the framework of a Developmental Model: From static diagnosis, to realization and development. In: *Investing in Humans: Vocational Guidance for Education and Occupation*, editor: Kosmidou-Hardy, Athens, ALPHA EKDOTIKI.

Kosmidou-Hardy, H., 2005, The School Vocational Guidance Developmental Model in Greece and the timeliness of its aims in our age: from static interests diagnosis to Realization, Development and Self-Education. In: *Investing in Humans: Vocational Guidance for Education and Occupation*, editor: Kosmidou-Hardy, (2nd ed.), Athens: ALPHA EKDOTIKI

Locke, E.A., 1991, "*The Motivation Sequence, the Motivation Hub, and the Motivation Core*," *Organizational Behavior and Human Decision Processes,* 50(2), 288–299

EOPPEP 29-5-2015 http://eoppep.gr/teens/index.php?option=com_tests&view=terga&Itemid=333

EPEAEK 23-8-2015 http://www.epeaek.gr/epeaek/el/a_2_2_2_2_4.html

Pryor, R.G.L., 1979, "In Search of a Concept: Work Values," *The Vocational Guidance Quarterly,* 27(2), 250–258

Roe, R.A. and Ester P., 1999, "Values and Work: Empirical Findings and Theoretical Perspective," *Applied Psychology: An International Review,* 48(1), 1–21

Rokeach, M., 1973, *The nature of human values*, New York: Free Press.

Sagie, A. and Elizur, D., 1996, "The Structure of Personal Values: A Conical Representation of Multiple Life Areas," *Journal of Organizational Behaviour,* 17(6), 573–586

Spokane, A.R., 1985, "A review of research on person-environment congruence in Holland's theory of careers," *Journal of Vocational Behavior*, 26, 306–334

Super, D., 1995, "Values: Their nature, assessment, and practical use," D. E. Super, y B. Sverko (Ed), *Life roles, values, and careers* (54-61), San Francisco, Jossey Bass

Van Esbroeck, R., Butcher, V., Broonen, J.P. and Klaver, A.M. (eds.), 1997, *Decision making for life-long learning*, FEDORA, Belgium, Vubpress

Vroom, V.H., 1966, "Organizational choice: A study of pre- and postdecision processes," *Organizational Behavior and Human Performance,* 1, 212-225

Wagger, A., Voutadaki, A., Iliopoulou, P., Karametsou, E., Krasslas, S., Kedraka, A., Paisopoulou, N., Papanagiotou, N., Pavlou, G., Reppa, E., Trokoudi, N., Fotiadou-Zachariou, T., Mastoraki, E., Aliferopoulou, M., Grammenos, N., Kalogeropoulou, M., Papadopoulou, O. and Cardozo de Britto, I., 2014, *I plan my future, (6th ed.)*, ITYE-DIOFANTOS