# Video as a tool for student counselling in Higher Education

# ELENI KARFAKI¹, STEFANOS ARMAKOLAS²

<sup>1</sup>Department of Business Administration University of Patras Greece ekarfaki@upatras.gr

> <sup>2</sup>Department of Education ASPETE Greece armakolas@aspete.gr

#### **ABSTRACT**

This study focuses on the use of video as an educational support tool for higher education, especially in the field of Business Administration Studies. The study refers to the contribution of video to the achievement of counselling purposes through the creation and evaluation of scenarios. The results confirm the power and attractiveness of the moving picture in the production of meanings that increase the effectiveness of the counselling and guidance process. Due to this effective integration of video in the counseling process, there is also a shift in existing knowledge and, in part and in the affirmative, a chain of dependencies between initial knowledge/attitude, the effectiveness of video, motivation and new knowledge/attitude. This study promotes the use of video in the field of counselling in Economics and Management and informs both the relative literature and practice.

### **KEYWORDS**

ICT, video, counselling, professional orientation, business administration

## RÉSUMÉ

Cette étude porte sur l'utilisation de la vidéo comme outil de soutien à l'enseignement supérieur, en particulier dans le domaine des études d'administration des entreprises. L'étude fait référence à la contribution de la vidéo à la réalisation des objectifs du conseil grâce à la création et à l'évaluation de scénarios. Les résultats confirment le pouvoir et l'attractivité de l'image en mouvement dans la production de significations qui augmentent l'efficacité du processus de conseil et d'orientation. Grâce à cette intégration efficace de la vidéo dans le processus de conseil, il y a également un changement dans les connaissances existantes sur les questions à l'étude et, en partie et dans l'affirmative, une chaîne de dépendances entre les connaissances/attitudes initiales, l'efficacité de la vidéo à travers l'impression générale qu'elle laisse, la motivation et les nouvelles connaissances/attitudes. Cette étude ouvre de nouveaux horizons pour rechercher la vidéo dans le domaine du conseil en Économie et Gestion en mettant à jour, tous les deux, la littérature et la pratique consultative.

# **MOTS-CLÉS**

TIC, vidéo, consultance, orientation professionnelle, administration des entreprises

### INTRODUCTION

Today young people face many challenges. On one side, the demand for education is increasing as the level of education and qualification someone possess defines employment possibilities (Harvey, 2000; IOBE, 2017). On the other side, labor market demands more and more specified qualification (Adecco, 2017) and more job descriptions appear due to the progress in the fields of technology, medicine and energy (Georgiou, 2018).

The rapid technological evolution has created a new challenge also in the field of counselling and professional orientation, regarding the use of the digital means that enrich the job of professional orientation and provide a new framework to support young people.

### THEORETICAL FRAMEWORK

# The framework of Counselling and Professional Orientation

The literature review of the institution of Counselling and Professional Orientation highlighted a research focus on the scientific and technical issues related to the process of counselling. More specifically, the comparative study of the scarce Greek sources revealed a focus on:

- the monitoring and theoretical grounding (Kassotakis, 2002) and the historical evolution (Alexopoulou, 1981; Katsanevas, 2008; Malikiosi-Loizou, 2011) of the institution,
- thefactors that affect professional choices, such as the influence of family (Kounenou, 2011) or gender (Kiousi, Florakos & Papakitsos, 2017),
- the application on special groups, such as disabled people (Maina, 2011), people over 50 (Chatzipanagiotou, 2012), 2nd chance school students (Andreadis, 2007) etc.
- the study of techniques and means on the process of counselling, such as quality issues (EKEP, 2007a).

On the other side, foreign literature focuses more on the work of the consultant as a practitioner, that is the content and process of counselling (Herr & Cramer, 2016; Skovholt & Trotter-Mathison, 2014), giving at the same time emphasis on specific professional fields such as sports (Murphy, 2012), global management (Cappellen & Janssens, 2005) and entrepreneurship (Henderson & Robertson, 2000).

# Video in counselling and professional orientation: theory and practice

Today it is common sense that most activities are defined by Information and Communication Technology (ICT) (Komis, 2002). The audiovisual experience completes multiple educational roles (attractive, directional, instructive, enhancing, and memorable) and as such it is of vital importance (Amundson, Harris-Bowlsbey & Niles, 2006; Karagiannopoulou, Papadopoulos & Armakolas, 2017). The attractiveness of video relies on its ability to be easily incorporated to various counselling environments, digital or conventional, as well as to be easily sought or produced and used by a counsellor. Today there is the possibility for any counsellor, by using simple means (i.e. Movie Maker, Powtoon, VideoScribe, Youtube, specialized dadabases etc), to produce, edit and publish or diffuse video. According to Millerson and Owens (2008), following such processes makes it easy for the counsellor to produce an almost professional outcome. At this phase, the increased bandwidth can boost the use of video and other multimedia (Watts & Lloyd, 2001). This embeddedness has been studied in depth in the literature and the conclusion is

that ICT increases the flexibility and the quality of counselling services (Bimrose & Barnes, 2010; Hooley, Hutchinson & Watts, 2010).

E-counselling, refers to the utilization of Information and Communication Technology (ICT) in the guidance-counselling process. Nowadays, although the wave of advances in ICT in this specific field is still inadequate, the positive contribution of this new stream of research is acknowledged in particular as far as personal development is concerned (Kolog, Sutinen & Vanhalakka-Ruoho, 2014). The significance of ICT in facilitating the rendering of guidance and counselling services is also assessed. It is therefore concluded that ICT, via video, needs to be fully integrated into the delivery of guidance-counselling services (Owolabi, 2018).

This integration seems to be particularly challenging in the field of Business Administration, where there is a variety of professional paths and orientation needs. The map of employment is changing, at the same time that university curricula do not adopt to business needs and students seem to be disappointed about the lack of guidance, in particular towards entrepreneurship (EY, AUEB & Endeavor, 2017), which, however, is a very popular professional choice in Greece (IOBE, 2016). The literature in this field is totally absent.

The aim of our study is therefore to explore the effectiveness of ICT, in particular the video, in the e-counselling process, in the unexplored field of Business Administration.

#### RESEARCH METHODS

# Identification of guidance needs

To achieve the purpose of the current study three interventions were developed. The criteria for choosing them were: i) to cover full scope of professional orientation issues that trouble young people, ii) to show the capabilities for video production, in the field of Business Administration. In this framework, an initial qualitative research was conducted to 13 people, between 13-35 years old, to identify their guidance needs. The videos were then chosen from official databases and incorporated into the corresponding interventions.

Interventions aim at supporting young people to understand their interests and the educational and professional opportunities they have. The process of lifelong counselling, according to Malikiosi-Loizou (2002), includes the following stages of personal and decision making skills development:

- Building an alliance for professional orientation between the counsellor and the counsellee.
- Better self-awareness, self-confidence and self-esteem of the counselling, towards the definition and promotion of their interests, that is self-sufficiency.
- Presentation of new perspectives and guidance to decide through alternatives.
- Formation and selection of techniques for goal achievement.

#### Video-interventions

The professor tried to serve as a facilitator/mediator and a supporter to students and did not interfere with the process neither by expressing any opinion or prescriptive advice nor by making steering questions (Panagiotakopoulos, Karatrantou & Sarris, 2016).

*Intervention # 1: Getting knowledge of the field of Economy and Business* 

The aim of this intervention is to inform the counsellee about the scientific and professional opportunities in the field of Economy and Business. This video was created by the National Organisation for the Certification of Qualifications & Vocational Guidance (EOPPEP) and is accessible in the link: https://goo.gl/g4oYoH.

*Intervention #2: Who is a manager and what he does?* 

In the framework of this intervention the counsellee is informed about the role of a manager, about his work and skills, through an illustrated storytelling especially created to the cartoon-aesthetics application Powtoon. The story presents 3 managers interacting to answer to the abovementioned questions of a young girl (https://goo.gl/fjw3jF).

Intervention #3: Developing a business idea.

This intervention aims at the development of business model design and communication skills of prospective entrepreneurs that are essential for the effective transformation of a business idea to a sustainable enterprise. For this purpose, six videos based on the widespread "Business Model Canvas" business design technique were employed (https://goo.gl/TeWTCV).

### The research tool

The current study was conducted through a questionnaire. For the design of this research tool we took into account various criteria for video evaluation proposed by scholars (Amundson et al., 2006): content, structure and organization, technical excellence, aesthetics, educational and teaching suitability. More specifically, the questionnaire is based on the variables of the overall evaluation of video effectiveness proposed by Panagiotakopoulos, Pierrakeas & Pintelas (2003). These scholars also propose the use of 5-level Likert scale for the measurement of the degree of agreement or disagreement to several propositions that correspond to the variables. Following, we present these variables:

- design and structure of content
- the logic of sequences (frames) presentation
- duration of content
- quality of picture audio light and legible texts
- overall aesthetic result
- interesting use of camera and enrichment with graphics
- balance of visual, audio and textual elements
- sufficient and relevant information
- compatibility to the framework of counselling intervention
- well-documented and reliable content
- language and terminology
- syntax and grammar, proper use of language
- obvious purposefulness

The electronic questionnaire (https://goo.gl/douZaX) was developed in order to answer specific research questions deriving from the literature review and the practice in the field of counselling for Business Administration:

- 1. Which video type is more preferred?
- 2. How age and gender affect video evaluation?
- 3. In which variables video is higher rated?

- 4. Does video affect the knowledge about an issue?
- 5. Is there a relationship between the initial knowledge, video effectiveness and the overall impression, the knowledge acquired through the video, and the motivation of the counsellee?

The questionnaire was sent via email to 320 prospective and current university students and graduates that had previously shown interest or concerns on one or more of the issues of the videos. The number of questionnaires completed was 66 and the number of interventions completed was 101, as a counsellee may need guidance in more than one issue. The duration of the research was from 1/3/2018 till 31/3/2018. The data were collected through GoogleForms and analyzed in SPSS24.

### **RESULTS**

### Reliability of the research tool

First, we tested the reliability of the questionnaire through the measurement of internal consistency coefficient Cronbach's Alpha. The test was implemented for each of the respective questionnaires. The results are presented in the following paragraphs.

**TABLE 1**Reliability Analysis Cronbach's alpha

Intervention	Content	St.Cronbach's Alpha
1	The field of Economy and Business	0.812
2	The manager and managerial skills	0.867
3	From the business idea to the entrerprise	0.814

The values 0.812 > a > 0.867, according to Panagiotakopoulos & Sarris (2015, p. 107), reveal a very strong internal coherence in each of the questionnaires.

# The sample profile

Our sample consisted of 55% women and 45% men, while most of them were students (40%) and graduates (35%). The average age was 29 years and together with the status of the counsellee seem to differentiate the initial interest for the intervention.

# Evaluation criteria rating

### Video-intervention 1

The average evaluation of various video effectiveness criteria is between 3.06 and 4.56 showing that the video is effectively incorporated into the counselling framework. In Figure 1 we can observe, in order of descending relevant importance, how students and graduates evaluated these criteria.

As it was expected, the initial knowledge of the field of Economy and Business and the necessary skills appears to be low, while the impact of the video-intervention to the knowledge of the field is high. The overall impression acquired by the video is very high. However, the motivation through the video seems to be relatively low.

Regarding the demographics impact, we found that the compatibility of video to the framework of the counselling purpose (t=2.579, df=11, p=0.026<0.05), the contribution of the video to the knowledge of Economy and Business (t=4.442, df=11, p=0.006<0.05) and the knowledge of skills required in this field (t=2.734, df=11, p=0.019<0.05) appear to differ statistically between men and women. Moreover, age does not differentiate the perceived effectiveness of video, with the exception of the balance of sound-picture-text (F(3,16)=4.009, p=0/032<0.05). Regarding the causal chain of our research (knowledge-impression-motivation) the regression analysis did not show any dependences.

#### Video-intervention 1 100% ■ Totally agree 90% 80% 70% Agree 60% 50% ■ Neither agree, 50% nor disagree 40% 30% Disagree 44% 20% 10% ■ Totally 0% disagree Sufficieny and relatedness of.. mpact to the knowledge of skills Content Reliability Video purposefulness Video content Grammar, syntax, terminology Overall impression mpact to the knowledge of the field Compatibility to the counselling. Mobilisation for further practice Video quality Knowledge of the field Time effectiveness Knowledge of skills required Salance between sound-picture-text Jse of camera

#### FIGURE 1

Degree of agreement to the importance of video efficiency criteria for intervention 1

### Video-intervention 2

The average evaluation of video effectiveness criteria is between 3.36 and 4.71, which means that its incorporation into the counselling framework is effective. In Figure 2 we can observe the evaluation criteria in order of descending relevant importance, where the initial knowledge about the managerial status and skills is very low. Moreover, the impact of the video-intervention to this knowledge is high, as well as the overall impression acquired by the video. However, the motivation though the video seems to be relatively low.

Regarding the demographics impact, we found that the overall impression the video left is correlated to various criteria, meaning that the higher rated are these criteria, the better the overall impression will be. The use of camera, the special effects etc appear to have a

strong positive correlation (sig. 0.001, rs 0.649). The balance between sound, picture and text has a stronger positive correlation (sig. 0,000, rs 0.816), as well as the compatibility with the framework of the counselling intervention (sig. 0.000, rs 0.753). Regarding the chain of dependence between knowledge-impression-motivation, the regression analysis did not produce any statistically significant outcomes.

#### Video-intervention 2 1 0,9 Totally agree 0,8 0,7 Agree 0,6 0,5 ■ Neither agree, nor disagree 0,4 Disagree 0,3 0,2 27% ■ Totally 0.1 disagree 0 Video purposefulness Time effectiveness Video quality Impact of video to the knowledge of. Compatibility to the counselling framework Use of camera Knowledge of managerial status Impact to the knowledge of managerial. Sufficieny and relatedness of information Balance between sound-picture-text Video content Mobilisation for choosing managerial. Content Reliability Overall impression Grammar, syntax, terminology Knowledge of managerial skills

#### FIGURE 2

Degree of agreement to the importance of video efficiency criteria for intervention 2

### Video-intervention 3

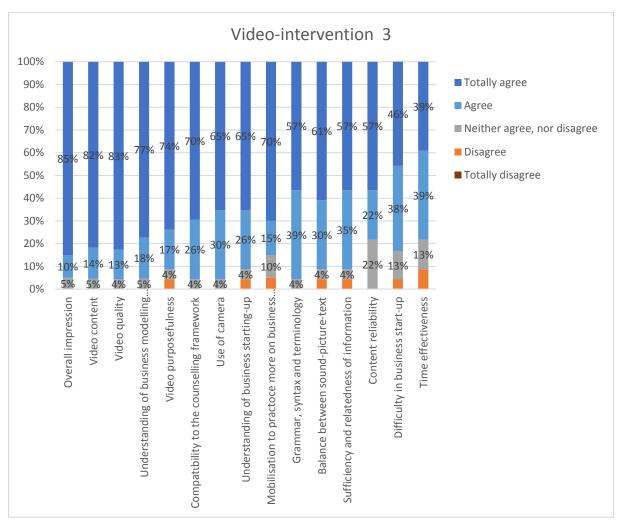
The average evaluation of video effectiveness criteria is between 4.09 and 4.8, which means that the videos were effectively incorporated into the counselling framework. In Figure 3, in order of descending relevant importance, we can see that the initial knowledge of how to startup a business is low. Moreover, the impact of the video-intervention to this problem is high, as well as the overall impression acquired by the video. However, the motivation to practice more on business design after watching the videos is higher, related to the previous interventions.

Regarding the demographics impact, the overall impression that the video gave to the counsellee seems to be positively correlated, in a satisfying degree, to the understanding of the importance of the business model (sig. 0.004, rs 0.623) and to a very strong degree to the motivation to practice more in business modelling (sig. 0.000, rs 0.812). The more positive

the general impression, the more the perceived importance of new knowledge will be, and the more the practice on the business model, the more positive this impression will be.

However, regarding the chain of dependence, the regression analysis produced some statistically significant outcomes. First, the acquired knowledge of the importance and the process of business modelling has an impact on motivation for more practice (sig. = 0.032 < 0.05). In turn, the general impression acquired has great impact on motivation (sig.=0.000 < 0.005). Finally, video effectiveness criteria seem to influence the motivation to practice more on business modelling (sig.=0.002 < 0.005).

#### FIGURE 3



Degree of agreement to the importance of video efficiency criteria for intervention 3

# DISCUSSION AND CONCLUSIONS

The above-mentioned results are in agreement to the conclusion that ICT has an exceptional impact on education (Laschou, Kollias & Karasavidis, 2018; Papadiamantopoulou, Papadiamantopoulou, Armakolas & Gomatos, 2016; Usta & Korkmaz, 2010) and open up a new stream for research in the field with focus on video. More specifically, regarding the type of the video that is appraised as more effective, the descriptive statistics showed that

the more attractive videos have a cartoon style as well as a more professional design. With regard to effectiveness, evaluation reaches a satisfying level, with even higher rates at the final intervention. The overall impression is very high for all interventions.

Hypotheses testing about the relationship between age and efficiency reveals a focus on more technical issues while getting older. Descriptive statistics show that different counselling issues concern people on their twenties (the field of Economy and Business) than on their thirties (business design skills). A general assumption, in agreement to Malikiosi-Loizou (2002) perception of lifelong counselling, is that counselling needs in the field of Business Administration are lifelong and this is a wide unexplored field for future research. Moreover, gender is connected to the new knowledge/disposition acquired though the video but is diversified between interventions.

Video efficiency on various criteria is related to the overall impression that the counsellee gets, which is related to the motivation and the change in knowledge/disposition after watching the video in some cases. So, we can assume that the causal chain of our research is partly confirmed. More specifically the regression analysis has shown that the acquired knowledge, the efficiency of video and the overall impression define the motivation, while the initial knowledge/disposition does not relate to them. A further causality analysis, on a larger sample, through Structural Equation Modelling may shed light on the dynamics of this relation. Another limitation to overcome is the number of interventions, which for the purpose of this paper are reduced to three, while the opportunities for further study in the field of Business Administration are many. Moreover, we found that in those interventions that there is an exercise after watching the video the motivation is greater. We propose that videosshould be combined to practice for increased efficiency.

The contribution of this study is that is the first attempt to study the effectiveness of incorporating video into counselling in this field. This contribution adds to the literature of ICT application in counselling and professional orientation, as well as the limited literature on the counselling process (EKEP, 2007b). In a practice perspective, the contribution of this study is to offer practitioners a novel approach to enrich their counselling.

In conclusion, in the specific field of Business Administration the boundary between education and counselling and professional orientation is indistinguishable due to the nature of the discipline/field. This research confirms the importance of video to the fulfillment of educational roles (Amundson et al., 2006). In particular in managerial education, guidance on the issue of entrepreneurial design seems to be an answer to students/graduates demands (EY, AUEB & Endeavor, 2017).

#### **REFERENCES**

Adecco (2017). Global Talent Competitiveness Index (GTCI) 2017 – Adecco Greece. Retrieved from https://www.adecco.gr/en/%CE%9F-%CE%A0%CE%91%CE%93%CE%9A%CE%9F%CE%A3%CE%9C%CE%99%CE%9F%CE%A3-%CE%94%CE%95%CE%99%CE%9A%CE%9A%CE%97%CE%A3/.

Alexopoulou, D. S. (1981). Professional orientation at school. *Modern Education: Quarterly Review of Educational Issues*, *4*, 74-77.

Amundson, N. E., Harris-Bowlsbey, J., & Niles, S. G. (2006). *Essential elements of career counselling: Processes and techniques*. London, UK: Pearson.

Andreadis, M. I. (2007). Counseling and vocational guidance in second-chance schools: The influence of teaching of the Counseling Career course to the students of the second chance school in Kalamata and the impact on their aspirations. Master thesis, Hellenic Open University, Greece (in Greek).

Bimrose, J., & Barnes, S. A. (2010). Labour market information (LMI), information communications and technologies (ICT) and information, advice and guidance (IAG): the way forward. Warwick, England: Institute for Employment Research. Retrieved from http://www.ukces.org.uk/upload/pdf/424721%20LMI%20report\_2.pdf.

Cappellen, T., & Janssens, M. (2005). Career paths of global managers: Towards future research. *Journal of World Business*, 40(4), 348-360.

Chatzipanagiotou, D. (2012). The needs of secondary education teachers, aged over 50, for counseling and vocational guidance. Bachelor Thesis, University of Macedonia, Greece (in Greek).

EKEP (2007a). International quality assurance and quality management systems for Counseling and Vocational Guidance services. Athens: National Center for Vocational Guidance. Retrieved from: http://www.eoppep.gr/images/SYEP/Diethni\_Sys\_Poiotitas.pdf (in Greek).

EKEP (2007b). Guide to Counseling and Vocational Guidance in the field of Employment. Retrieved from: http://www.eoppep.gr/images/SYEP/ODIGOS\_EKPAIDEUSIS.pdf (in Greek).

EY, AUEB, & Endeavor (2017). Education, entrepreneurship and employment. Retrieved from: http://endeavor.org.gr/wp-content/uploads/2017/07/Reskilling\_Infographic\_en.jpg.

Georgiou, K. (2018). Preparing young people for new careers and jobs of the future. Retrieved from http://www.kepa.gov.cy/Europass/Uploads/Media/2%20%CE%9D%CE%95%CE%91%20%CE%95%CE%A0%CE%91%CE%93%CE%93%CE%95%CE%9B%CE%9C%CE%91%CE%A4%CE%91%CE%A0%CE%91%CE%A0%CE%91%CE%A3%CE%93%CE%93%CE%93%CE%93%CE%93%CE%93%CE%95%CE%B%CE%9B%CE%9F%CE%A4%CE%91%20%CE%A4%CE%9F%CE%A5%20%CE%9C%CE%95%CE%9B%CE%9B%CE%9F%CE%9D%CE%A4%CE%9F%CE%A3.pdf.

Harvey, L. (2000). New realities: The relationship between higher education and employment. *Tertiary Education & Management*, 6(1), 3-17.

Henderson, R., & Robertson, M. (2000). Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career. *Career Development International*, 5(6), 279-287.

Herr, E. L., & Cramer, S. H. (2016). *Career guidance and counselling through the life span: Systematic approaches.* Glenview, IL, US: Scott, Foresman & Co.

Hooley, T., Hutchinson, J., & Watts, A. G. (2010). Careering through the Web. London: UKCES.

IOBE (2016). Annual Entrepreneurship Report 2016-2017. Retrieved from http://iobe.gr/docs/research/RES\_02\_18122017\_REP\_GR.pdf.

Karagiannopoulou, A., Papadopoulos, A., & Armakolas, S. (2017). Video creation and social networking educational environment. A case study of pre-service teacher training in ASPETE Patras. In J. Honzíková & P. Simbartl (Eds.), *Proceedings: Konference Olympiáda techniky Plzen 2017* (pp.180-184). Plzen: University of West Bohemia.

Kassotakis, M. (Ed.) (2002). *Counseling and career guidance: Theory and practice*. Athens: Tipothito (in greek).

Katsanevas, T. (2008). International developments in Vocational Guidance Counselling. *Modern Education: Quarterly Review of Educational Issues*, 152, 54-66.

Kiousi, E., Florakos, G., & Papakitsos, E. C. (2017). Sex stereotypes and gender selection in secondary education. *Research in Education*, *6*(1), 95-111.

Kolog, E., Sutinen, E., & Vanhalakka-Ruoho, M. (2014). E-counselling implementation: Students' life stories and counselling technologies in perspective. *International Journal of Education and Development using ICT*, 10(3), 32-48.

Komis, V. (2002). Research topics and methodological issues related to the construction of the research field of teaching Informatics. In A. Dimitrakopoulou (Ed.), *Third Panhellenic Conference with International Participation "Information and Communication Technologies in Education"* (pp. 219-228). Rhodes: ETPE - University of the Aegean (in Greek).

Kounenou, K. (2011). The relationship between technical high school students' career decision-making ability and family. *Psychology*, 18(3), 333-347.

Laschou, S., Kollias, V., & Karasavvidis, I. (2018). How do transformational principals view ICT as a means for promoting educational innovations? A descriptive case study focusing on twenty-first century skills. In A. Mikropoulos (Ed.), *Research on e-Learning and ICT in Education* (pp. 43-67). Switzerland: Springer International Publishing.

Maina, M. (2011). Counseling and guidance in structures that educated adults with disabilities: Documenting the situation in Syros. Master thesis, Hellenic Open University, Greece.

Malikiosi-Loizou, M. (2011). Counseling Psychology in Greece. *Hellenic Journal of Psychology*, 8, 266-288.

Millerson. G., & Owens, J. (2008). Video Production Handbook. USA: Focal Press.

Murphy, S. (Ed.). (2012). *The Oxford handbook of sport and performance psychology*. New York: Oxford University Press.

Owolabi, B. G. (2018). The concept of e-councelling: Utilization of information and communication technology (ICT) in counselling. *IFE PsychologIA: An International Journal*, 26(1), 209-221.

Panagiotakopoulos, C., & Sarris, M. (2015). *Designing and authoring a thesis using ICTs*. Athens: Ed. Ion (in Greek).

Panagiotakopoulos, C., Pierrakeas, C., & Pintelas, P. (2003). *Educational software and its evaluation*. Athens: Metaichmio (in greek).

Panagiotakopoulos, C., Karatrantou, A., & Sarris, M. (2016). Producing educational videos: A field-based implementation with PBL methodology. In P. Anastasiades & N. Zaranis (Eds.), *Research on e-Learning and ICT in Education* (pp. 91-103). Switzerland: Springer International Publishing.

Papadiamantopoulou, M., Papadiamantopoulou, C., Armakolas, S., & Gomatos, L. (2016). Pre-service and in-service teacher training: The use of technology in the Greek educational system. In J. Honzíková & P. Simbartl (Eds.), *Proceedings: Konference Olympiáda techniky Plzen 2016*, (pp. 32-40). Plzeň: University of West Bohemia.

Skovholt, T. M., & Trotter-Mathison, M. (2014). The resilient practitioner: Burnout prevention and self-care strategies for counselors, therapists, teachers, and health professionals. London. UK: Routledge.

Usta, E., & Korkmaz, Ö. (2010). Pre-service teachers' computer competencies, perception of technology use and attitudes toward teaching career. *Journal of Human Sciences*, 7(1), 1335-1349.

Watts, M., & Lloyd, C. (2001). Evaluating a classroom multimedia programme in the teaching of literacy. *Educational Research and Evaluation*, 7(1), 35-52.