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DOCTORAL THESIS

**Career decision-making self-efficacy beliefs among adolescents in Cyprus and the
influence of parental support**

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**A Thesis submitted in fulfilment of the requirements for the PhD Degree
at Warwick University**

September, 2020

Dedicated to my beloved husband, Stelios. We met each other when I started my studies; he supported me all the way and left a month after I submitted my PhD thesis. To a clever, tender, unique, good-hearted, generous, and modest young man whom I keep deep in my heart. I miss you so much my love!

“If I had just one wish, it would be to see you again,

If I had just one moment, it would be with you here

If I had just one breath, it is only you I would raise

If I had just one night, I would stay up for you

If I had one dream, I would save it for you

If I had just one minute, I would give it to you as a present”

Giorgos Theophanous

Abstract

This thesis presents work done for my part-time doctorate investigating career decision self-efficacy beliefs of adolescents in Cyprus and the ways which parents employ to support them through reinforcement of their career decision self-efficacy beliefs. The research was conducted among 454 adolescents in their final grade and a sample of their parents in the Republic of Cyprus. Cypriot sociocultural context was examined and associated with the methodology chosen and the discussion of the findings. Bandura's (1994) perceived self-efficacy and Social Cognitive Career Theory by Lent, Brown, & Hackett (2002) were the primary framework of this study. Adolescents' competencies regarding their career-related self-efficacy beliefs were investigated by using the Career Decision Self-Efficacy Scale-Short (CDSE-SF) developed by Betz, Klein, & Taylor (1996). The study also examined the ways which parents employ to support their children by reinforcing their career decision self-efficacy beliefs through self-enhancement, reciprocal communication, parental active involvement and emotional support with the use of a questionnaire developed by the researcher. Social and parental support was investigated withing the framework of a small-oriented country with strong family bonds (Georgas, et al., 1997; Georgiou & Meins, 2010).

The results of this study do not depend on recording self-referent reports of either students or their parents but on recording of parents' and students' views on the same investigation. This study also achieved a matching sample consisting of students and their parents through which a comparison of perceptions was correlated.

Both adolescents and their parents in Cyprus, who participated in this study, report that students have high career decision self-efficacy beliefs (Bandura, 1986(b); Nicolaidou & Philippou, 2003; Pappas & Kounenou, 2011), claiming that they feel very confident in their abilities to accomplish tasks or activities related to career decision-making. The adolescents

who participated in this study seemed to derive their confidence more from their parent's support since three out of four parental ways employed to enhance career decision self-efficacy beliefs predict career decision self-efficacy. The participants in this study agree on the level of self-efficacy beliefs, showing confidence in the variable of information gathering and less confidence in problem-solving.

This study has revealed that parental understanding of the support they are providing and young peoples' understanding of the support is not aligned. Adolescents claim that their parents support them more through self-enhancement and parental active involvement whereas parents claim that the parental ways they use more are emotional support and reciprocal communication.

The independent variables of gender, type of school and parents' educational level seem to have a significant role in the provision of parental support but have no role in shaping career decision self-efficacy beliefs. Finally, both groups of participants agreed that reciprocal communication seems to predict self-efficacy beliefs highly. Adolescents' answers showed also that gender, parental active involvement and emotional support are significant predictors of parental support.

Findings regarding the self-efficacy beliefs were consistent with the theoretical tenets of Bandura's (1986) Social Cognitive Theory and Social Cognitive Career Theory by Lent, Brown, and Hackett (1994).

The thesis ends with implications about counselling and suggestions for school counsellors and future research.

Keywords: social cognitive career theory, self-efficacy beliefs, parental support

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1. INTRODUCTION

Making a career decision is one of the most essential and challenging processes undertaken by individuals in their life (Gati, et al, 2019; Argyropoulou & Kaliris, 2018). The occupation chosen by the individual has distal implications and is an indicator of personal and social identity (Argyropoulou & Kaliris, 2018). It also reveals the social, economic, emotional welfare and educational level and other characteristics associated with the profession (Vondracek, Lerner, & Schulenberg, 2019). This decision becomes more challenging and demanding today (Storme & Celik, 2018; Gati, et al, 2019). The considerable changes in economy and technology as well as the complexities the 21st century's world of work make careers multi-decisional, unpredictable and unstable (Blustein, 2003; Bright & Pryor, 2005; Krieshok, Black, & McKay, 2006; Savickas, 2000, 2005; Van Esbroeck, Tibos, & Zaman, 2005). These changes have an impact on the workplace and on the educational system, which prepares the future workforce. Therefore, the world of work changes, jobs are restructured, and new challenges and opportunities arise. Content knowledge-based learning has been transformed into mastering life skills required to succeed in educational, occupational and personal life (Fadel, Bialik, & Trilling, 2015). As careers have become less predictable, transferable and non-intellective, capabilities like self-efficacy, resilience, adaptability and flexibility help individuals persevere in the unpredictable world of work (Greenhaus, Callanan, & Godshalk, 2009; Richardson, Albraham, & Bond, 2012). Within these, adolescents are required to choose a career which should fit their interests and capabilities but at the same time be very demanding in terms of life skills like flexibility, adaptability, collaboration, and communication. They often acknowledge that in order to persevere in their chosen career they need to cultivate life skills to keep their job at an initial

stage and, later, to change job or even career direction if necessary (Richardson, et al, 2012; Fadel, et al, 2015).

This study examines the role of self-efficacy in making a career decision by investigating career decision self-efficacy beliefs and the parental ways employed to support children's career decision self-efficacy beliefs in secondary schools in Cyprus. Self-efficacy beliefs have been chosen for this study since research (Pajares & Schunk, 2005; BarNir, Watson, & Hutchins, 2011; Chung, 2002; Ballout, 2009; Guan, Capezio, Restubog, Read, Lajom, & Li, 2016) confirms that self-efficacy beliefs play an important role in career choice and development. Implications for school counsellors are also discussed.

The study is separated into six chapters. Initially, the reader is given the rationale behind the selection of the specific subject through the theoretical framework and the purpose and the significance of the study for the Cyprus context. The role of the career counsellors at schools in Cyprus is also described. The career decision self-efficacy beliefs and social support theoretical model which has been developed for the purpose of this study is presented. Secondly, following the model, a thorough review of the literature is presented concentrating first on the theories of career choice and development, then on the role of self-efficacy beliefs in career decisions for adolescents and finally on the parental support and its effect on career decision self-efficacy beliefs and the factors which may influence parental support. Career counselling implications are highlighted regarding the school counsellors' role in supporting adolescents and adolescents' parents.

The third chapter examines the methodology employed in order to fulfil the purpose of this study. The reason for the choice of quantitative research is justified, a description of the sampling procedure is given, and data access and ethics acquired for the study are reported.

Details about the pilot study conducted before the main research, methodology, sample, results and conclusions and implications for the main research are presented. Then, the validation procedure and the steps followed to achieve validating are described. Finally, the purpose of the research, the models employed to analyse the results, as well as a diagram of the analysis, are presented.

In the fourth chapter the results of the study are presented divided into two primary subsections regarding the whole sample of the participants and the matching sample of the adolescents and their parents.

The results, discussion of the results, limitations of the specific study as well as implication for further studies, are discussed. Finally, the thesis ends with the conclusion, references, and appendices.

1.1 Theoretical framework

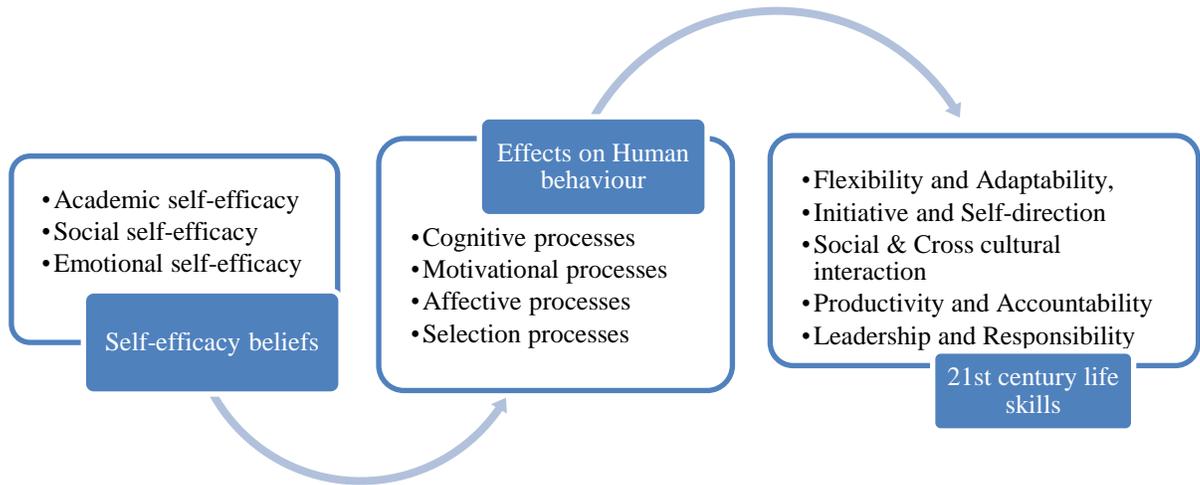
Fadel, Bialik, and Trilling(2015) describe three categories of skills needed for the 21st century: a) the Learning and Innovation which includes “the 4 C’s” that is to say, Critical Thinking and Problem-solving, Creativity and Innovation, Communication and Collaboration; b) the Digital Literacy referring to Information Literacy, Media Literacy and ICT Literacy and c) the Career and Life Skills, namely Flexibility and Adaptability, Initiative and Self-direction, Social & Cross-cultural interaction, Productivity and Accountability and Leadership and Responsibility. Educational systems around the world are trying to catch up with all these challenges. Parents have also been trying to adapt to providing the necessary opportunities to their children to cultivate those skills.

Towards the aim of dealing with all these challenges and difficulties, one of the proposals of literature and research is Bandura’s (1994) perceived self-efficacy beliefs as the

foundation for an individual's academic, personal and career development. Many relevant studies (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Lent, Brown, & Larkin, 1987; Hackett & Betz, 1995; Pajares & Schunk, 2005; BarNir, Watson, & Hutchins, 2011; Chung, 2002; Ballout, 2009; Guan, et al., 2016) revealed the importance of self-efficacy beliefs and expectations not only on adolescents' career and personal development but also the vital role they have for people in pursuing and sustaining effort in their life and dealing with negative emotions when facing difficult situations. Self-efficacy is described as an individual's belief in their ability to achieve goals, a personal judgment of how well one can execute actions, exert enough effort, sustain the effort in case of obstacles and reach successful outcomes (Bandura, 1994).

Therefore, most of the 21st- century skills seem to be closely connected with self-efficacy beliefs and expectations. The possible connection between self-efficacy beliefs and the 21st- century skills is presented in figure 1 as it was developed for the purpose of this study. This connection makes the self-efficacy concept, as described by Bandura (1982, 1994), a timeless concept which has a vital role in adolescents' lives. It is, therefore, essential for researchers to study the factors that develop and influence one's self-efficacy beliefs.

Figure 1: The role of self-efficacy beliefs on the 21st - century skills



Individually, self-efficacy's role in human's life could be considered vital, taking into consideration the effects it has on individuals' behaviour and the role of the domain of self-efficacy beliefs in everyday life.

Self-efficacy has various effects on human behaviour through cognitive, motivational, affective, and selection processes. Cognitive processes involve thinking processes which are acquired to organize and use information including goal setting, planning, prediction and persistence in the face of difficulties. Motivational processes have an influence on the individual's choices, the intensity, and the persistence of effort. The way individuals explain the failures and their outcome expectations: the possible outcomes they expect for future actions, and cognized roles: the choice of goals, the effort to expend and how long to persist. Affective processes regulate emotional states and elicit emotional reactions. Also, selection processes have to do with individual's choices of situations or activities, and/or their belief whether they can handle them (Bandura, 1994).

Then, self-efficacy domains are also very essential as they appear to cover necessary fields of human life. According to Suldo and Shaffer (2007), the most common domains of self-efficacy beliefs are a) academic self-efficacy: one's belief/confidence that he/she has the ability to achieve academic goals/tasks (Bong & Skaalvik, 2003), b) social self-efficacy: refers to one's perceived ability to pursue and sustain interpersonal relationships (Smith, and Betz, 2000), and c) emotional self-efficacy: one's perceived ability to deal with the negative emotions derived from stressful events (Luengo Kanacri, Pastorelli, Eisenberg, Zuffianò, & Caprara, 2013).

Lv, Zhou, Liu, Guo, Jiang, Liu and Luo (2018) stated that:

“These three domains of self-efficacy have all been proven beneficial for people's development, including their academic achievement (Richardson, Abraham & Bond, 2012), academic aspiration (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996, 2001), career choice (Bandura et al. 2001) and subjective well-being (Yap & Baharudin, 2016)” (p.1).

When individuals employ the four domains of self-efficacy, academic, social and emotional, and use effectively the four processes through which human behaviour is affected, cognitive, motivational, affective and selection processes, their behaviour would be affected positively regarding the cultivation of life skills. For example, if individuals have high confidence about their ability to achieve academic goals/tasks, believe strongly that they can pursue and sustain interpersonal relationships and feel confident enough to deal with the negative emotions derived from stressful events they would possibly be able to cultivate skills like flexibility and adaptability which demands an excellent control of negative emotions which may come up in the process of adapting to new situations or achieving new knowledge

to show flexibility. Social and cross-cultural interaction could be easier to handle if individuals feel confident enough to pursue and sustain new relationships. The specific processes may be possible to be achieved if individuals employ thinking processes (cognitive process) which are acquired to organize and use information, show intensity and persistence of effort (motivational process), regulate their emotional states (affective process), and choose goals which they can achieve (selection processes).

Taking into consideration the various and broad effects that self-efficacy has on human behaviour connected to the domains of self-efficacy beliefs, Pajares (2005) stated that self-efficacy beliefs are the primary components in individual's every-day functioning and constitute the keystone for motivation, well-being and personal achievements in all functions of one's life.

To date, a typical internet search through Google Scholar generates around 1,870,000 results on the concept of self-efficacy. The results showed that the term have been used in various areas of research like medicine, athletics, psychology, media studies, business, sociology, psychiatry but primarily in educational research. Accurately, in educational research, "scholars have reported that, regardless of previous achievement or ability, self-efficacious students work harder, persist longer, persevere in the face of adversity, have greater optimism and lower anxiety, and achieve more." (Pajares, 2005, p.343).

The role of self-efficacy beliefs in career choice and development was firstly investigated by Hackett and Betz (1981) in their study on women's career development. They suggested a framework for understanding career decision self-efficacy, so researchers later (Multon, Brown, & Lent, 1991; Pajares, 1996; Lapan, Adams, Turner, & Hinkelman, 2000; Gianakos, 2002; Britner & Pajares, 2006; Gushue & Whitson, 2006; Chung, 2002; Pajares

& Schunk, 2005; BarNir, Watson, & Hutchins, 2011; Ballout, 2009; Guan, et al., 2016; Sidiropoulou-Dimakakou, Argyropoulou, Drosos, Kaliris, & Mikedaki, 2016) expanded more and applied the framework among school and college students, adults, ethnic diverse sample etc. Quantitative inquiries on students' career decision self-efficacy beliefs have shown that students perceived self-efficacy beliefs are the key determinants of their occupational self-efficacy and choices, and they reveal that the higher the career-related self-efficacy beliefs are the more extensive the range of career options, the higher the success, the better the interest in their educational pursuits to achieve those choices (Bandura et al., 2001; Pajares, 2005).

Therefore, career decision making is affected by self-efficacy beliefs in several ways. They control individual's motivation, aspirations, and ability to develop occupational interests and persevere in the face of difficulties and failures (Bandura, 1997; Betz & Hackett, 1997; Lent et al., 1994). The early research examined the role of self-efficacy beliefs about the content of the career choices (Holland, 1985(b)) while later the research concentrated on the process and their role for the enhancement of the career decision-making. For this study, in order to investigate career decision self-efficacy beliefs, Career Decision Self-Efficacy Scale by Betz, Klein, & Taylor (1996) was chosen which is based on the five competencies of career decision making described by Crites (1978) through the Career Maturity Theory. The model of career maturity proposed that matured/right career decisions can be achieved through five career choice competencies. These competencies are a) accurate self-appraisal, b) gathering occupational information, c) goal selection, d) making plans for the future and e) problem-solving.

Individuals are usually called to make career decision during adolescence. Adolescence by itself is a stressful and very complicated to cope with period of one's life that

has an effect on children and their parents (Bandura, 2001). The changes that are happening during this period are varied and may be social, cognitive, environmental, emotional, physical. These changes may cause stress, anxiety and in some cases, depression (Thapar, Collishaw, Pine, & Thapar, 2012). Bandura (2001) claims that the best way to deal with these difficulties is to develop good control of their lives or agency. Schunk and Miller (2002) claim that if children manage a good control of their lives during adolescence, this can create a good sense of the resilience of self-efficacy for the rest of their lives.

For adolescents, career decision-making is crucial as it means not only their transition from school to university but their transition to the workplace, as well. Everyone develops their career in a social context where other social roles coexist. During adolescence, coexisting social roles may be son/daughter, sibling, student, boy/girl. Individuals value core roles because they are essential to their identity and life satisfaction (Judge, Bono, Erez, & Locke, 2005; Matud, Bethencourt, & Ibáñez, 2014; Meynhardt, Brieger, & Hermann, 2020). Social roles influence the individual's decision-making process by creating considerable pressure to conform to the expectations of others (De Jong, 2000; Maddi, 2012).

It is such a stressful and challenging period that adolescents should not be left alone but need support and help to deal with all the difficulties that arise (Seiffge-Krenke, 2013; Ghate & Hazel, 2002). An African proverb claims that "It takes a village to raise a child" meaning that an entire community of people should interact with children for those children to experience and grow in a safe and healthy environment being able to deal with the challenges of the age.

Vondracek and Schulenberg (1986) stress the importance of the social context to careers and elaborate vocational development theory by forming the model of developmental

contextualism. The importance of examining the role of the context for people's career choices is also stressed by Sultana (2017) especially for countries situated in the Mediterranean region. The development of an individual is a result of a reciprocal relationship between the individual and the context. Parents are considered to be the most prevalent influencers for their children (Ruholt, Gore, & Dukes, 2015) and especially for affecting positively their career development (Kniveton, 2004; Turner & Lapan, 2002; Bandura, 1999; Otto, 2000; Guerra, & Braungart-Rieker, 1999). In agreement, and regarding the development of children's self-efficacy beliefs, recent studies have shown that children acquire most of their self-efficacy beliefs from their parents (Schunk & Miller, 2002; Turner & Lapan, 2002) and all domains of self-efficacy, academic, emotional and social are positively associated with parental involvement (Yap & Baharudin, 2016). Literature supports that parental influence is one of the most critical social energizers for shaping and developing students' career decision self-efficacy beliefs (Eccles, 1994; Bandura, 1999; Otto, 2000; Lent, Brown, & Hackett, 1994, 2000; Turner & Lapan, 2002).

Investigating the way to influence self-efficacy beliefs, Bandura (1994) suggested four ways of influencing and called them sources of information which influence self-efficacy beliefs. These are: a) mastery experience, one's personal experiences; b) vicarious experience, others' experiences; c) verbal persuasion, positive or negative verbal persuasion; and d) affective arousal, how people feel both psychologically and physically.

This study has adopted four ways involved by parents to reinforce career decision self-efficacy beliefs and investigated parental support concerning these four ways of influencing career self-efficacy beliefs. therefore, the parental support in this study has been investigated by exploring the four parental ways: self-enhancement, reciprocal

communication, parental active involvement and emotional support which parents may employ in order to enhance their children's career decision self-efficacy beliefs.

Consistent with the recent literature and research, this study focuses on the competencies and sources of career-related self-efficacy beliefs and the role of the family social context that is, the influence parents have on their adolescents' career decision-making process and development.

In Cyprus, a recent PISA Report implied (Mousoulides & Karagiorgi, 2014), consistent with the literature, that family context plays an essential role in adolescents' career development, indicating very limited resilience among adolescents in general. In other words, they are not able to pursue careers or make appropriate career decisions when they do not feel appropriately supported by their parents (Koumoundourou, Tsaousis, & Kounenou, 2011). Cypriot culture is characterized as relatively collectivist with strong family bonds (Georgas, Christakopoulou, Poortinga, Angleitner, Goodwin, & Charalambous, 1997; Georgiou & Meins, 2010). Therefore, family expectations are a crucial influence on adolescents' decisions.

The conceptualization and measurement of career decision self-efficacy beliefs for this study involve the integration of two significant theories, one from clinical-social psychology and the other having its origin in counselling-vocational psychology. This study employs Social Cognitive Theory (SCT) in terms of considering adolescents self-organizing, proactive and self-regulating agents of their psychosocial development (Bandura, 1997, 1999), by using the cognitive variables of self-efficacy, outcome expectations and personal goals in order to understand how self-efficacy beliefs are learned, formed and modified. SCT is also used as the theoretical framework to understand adolescents' behaviour change and

their parents' role. Social Cognitive Career Theory (SCCT) (Lent, et al., 1994, 2002), from vocational psychology, is used as the framework to investigate how this behaviour is related to career decision-making and how it is influenced by factors such as gender, and parents' educational level.

Therefore, in disciplinary terms, this study is situated mainly within the field of psychology and especially within clinical-social psychology and counselling-vocational psychology. Clinical-social psychology as it attempts to measure adolescents' self-efficacy beliefs adopting Bandura's approach (1997,1999) that adolescents are active agents in forming, regulating, organizing, and developing their psychological development. At the same time, the study attempts to understand their parents' role in their psychological development which is also set within the field of clinical social psychology. This is confirmed by the choice of employing Social Cognitive Theory as one of the two theories adopted as the framework for this study. Additionally, the study attempts to investigate adolescents' self-efficacy beliefs specifically for the purpose of career decision making, to reveal if gender and parents' educational level (Bradley & Corwyn, 2002; McLoyd, 1990; Wilson & Wilson, 1992; Hossler & Stage, 1992; Alexander, Entwisle, Blyth, & McAdoo, 1988) influence these beliefs and at the same time to suggest appropriate counselling interventions. In order to achieve answers to the above questions the study employed Social Cognitive Career Theory (Lent, et al., 1994, 2002), the second theory as part of the framework of this study. This also situates the study within the counselling-vocational psychology.

Self-efficacy beliefs among adolescents in Cyprus are expected to be significant for their career decision making process. Most of the adolescents are expected to feel supported by their parents, but a few adolescents are expected to experience neglect by their parents at this stage of career development (Oechle, Maschetzke, Rosowski, & Knauf, 2002) or

express the need for more support from their parents. Gender is also expected to have no significant role regarding self-efficacy beliefs (Fitzgerald et al., 1995; Lapan et al., 2000; Betz & Borgen, 2010; Pappas & Kounenou, 2011) but may have regarding the way they perceive parental support (Jacobs, Chhin, & Bleeker, 2006; Pappas & Kounenou, 2011). Parents' educational level is expected to be significant in the sense of the quality and quantity of opportunities they offer to their children for enhancing their self-efficacy beliefs regarding all sources of information (Bandura et al., 2001).

1.2 Purpose and significance of the study – Research Questions

Although much research focuses on the influence of parental support on children's academic achievement (Bussey & Bandura, 1999; Steinberg, 1996; Fan & Chen, 2001; Fan & Williams, 2010; Ruholt, Gore & Dukes, 2015), few researchers (Lv et al., 2018; Garcia, Restubog, Toledano, Tolentino, & Rafferty, 2012) deal with how parents influence children's career development. Besides, most of the previous research on students' career decision self-efficacy beliefs and the support they receive from their parents concentrated on students' self-referent reports, and there was no attempt to record the parents' view and vice versa.

Therefore, researchers (Bandura et al., 2001; Garcia et al., 2012) suggested that there is a need for future studies firstly to attempt to investigate the way parents support their children in achieving high career-related self-efficacy beliefs and, secondly, to have data which is not merely self-reporting and to clarify how each party perceives and interprets the concept of parental support.

The purposes of this study were, first, to measure adolescents' career decision self-efficacy beliefs in Cyprus and the influence of their parents' support; second, to measure parental support and to find out which ways parents use to enhance career decision self-

efficacy beliefs of their children; third, to examine associations between parents and adolescents beliefs of adolescents career decision self-efficacy; and fourth, to examine associations between parents and adolescents beliefs of parents' support regarding career decision self-efficacy.

The uniqueness of this study lies in the fact that it attempts to measure adolescents' self-efficacy and parental support from the perspective of both adolescents and their parents and to also match the answers; it asks parents to state their view on their children's self-efficacy; it investigates parental support and its influence on career decision self-efficacy; it explores whether the variables of gender, parents' educational level and the kind of school students attend have an influence on their self-efficacy beliefs.

It is only by knowing and acknowledging the most influential competencies of students' career decision self-efficacy, the most potent parental ways of support and what is perceived by participants as supportive behaviour that career counsellors and parents would be capable of improving their interventions to enhance students' career-related self-efficacy beliefs.

To date, there has been no research in Cyprus investigating students' career-related self-efficacy beliefs and how parents shape and influence these beliefs. Consequently, this study is aiming for a better understanding of the contribution of the five career choice competencies to the development of career self-efficacy beliefs and the role of parents' influence on this process. These issues were explored with the intent to help school counsellors provide more effective support and plan appropriate and effective counselling interventions designed to increase students' career decision self-efficacy beliefs and train parents how to enhance these beliefs.

Because students use their self-efficacy beliefs as filters to make career decisions and pursue specific career choices (Bandura et al., 2001; Uitto, 2014; Zeldin, Britner & Pajares, 2008), it is essential for both school counsellors and parents to acknowledge and understand the process by which these beliefs are developed, what influences them and which sources of information are essential to be developed in order to plan appropriate counselling interventions aiming at the empowering of children's career decision self-efficacy beliefs through skill development.

Therefore, according to the results which came up from the research, this study aims to end up with some important implications for school counsellors, how to help adolescents and their parents. These implications would also be very useful for policymakers in Cyprus. Recently, the Ministry of Education, Culture, Sport and Youth has been developing new curricula to strengthen students' skills in developing self-awareness, making decisions and building resilience. Since I first became a career counsellor in Cypriot High Schools, I have identified a fundamental difficulty regarding the career decisions of Cypriot adolescents. Cypriot adolescents either have too high or too low career decision self-esteem. The first group resolutely believe that they can do very well with their chosen subjects, pass the highly-competitive university entrance exams and enter highly-demanding fields of study, a belief that is boosted (i.e. unhelpfully reinforced) by their family. The second group have limited resilience, having, for example, advanced qualifications and skills but choosing subjects and targeting professions which place limited demands on them because of a lack of support from their families. There are two challenges for those with too high expectations: the first challenge is whether the adolescents can live up to the expectations they and their parents have developed (e.g. if they can pass the exams); the second challenge falls upon those who are successful and must cope with their parents' excessive involvement in their later lives

(Symeou, Theodorou, Lamprianou, Rentzou & Andreou, 2018). This phenomenon is typified by a parents' union formed by the parents of students attending one of the public universities. The dominant challenge for those with low expectations is that they must contend with the low self-esteem emotions by following subjects with low demands which lead to low demanding professions, although they know that they can manage in more demanding situations. This behaviour prevents themselves from following professions which may offer them a better life than their parents, both economically and socially.

This study's implications for parents and career counsellors suggest counselling interventions firstly to foster career-related self-efficacy, so adolescents form an authentic view of their self-esteem and secondly to teach parents how to form and develop their children's self-efficacy beliefs.

Thus, the following research questions to provide the framework on which the data will be analysed, and the findings will be grounded:

- 1) Which of the five variables identified by Betz, Klein and Taylor (1996) (accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem-solving) are the most influential in shaping the career decision self-efficacy beliefs of adolescents in Cyprus?
- 2) Which ways (Self-Enhancement, Reciprocal Communication, Parental active involvement and Emotional Support) do parents use to enhance career decision self-efficacy beliefs for adolescents in Cyprus?
- 3) How do the independent variables of parents' educational level, adolescents' gender and the type of school they attend affect adolescents' career decision self-efficacy beliefs in Cyprus?

4) Do adolescents' and parents' perceptions regarding career decision self-efficacy beliefs and parental support differ?

In the small educational research community context where this study is placed, a quantitative inquiry was employed to investigate all research questions. In keeping with the methodological conventions of quantitative research, an attempt to give answers to the research questions was made in line with discovering cause and effect relationships, revealing participants' perceptions on the issues, ensuring anonymity, and avoiding disclosure of sensitive information.

1.3 Cyprus context

Since this study has been conducted in Cyprus, it is necessary to give a brief description of the Cypriot social, cultural and educational context in order to understand, justify and interpret the choices made for this study, for example the choice of the research questions and methodology, and the way findings are interpreted for the specific participants who live and function in the specific context. Sultana (2017) stressed the importance of examining the local context which shapes and defines career guidance and the factors which influence people's choices, especially in the Mediterranean region. Such factors may be education, socio-cultural factors, the structure of labour market, youth unemployment, economic inequalities, migration, political factors (Sultana, 2017).

The sociocultural factors which were taken into consideration for this study are firstly, the history of the island, underlining the principal events (e.g. the Turkish invasion onto the island in 1974; joining the European Union in 2004) which significantly influenced the development of the educational system, the labour market and the family culture. The second factor which is considered important is the way the Cypriot Educational System functions,

in terms of the fact that it is highly centralised and controlled by the government. This places a strong focus on education at all levels with targets to establish the island as an international educational, technological and research centre following Lisbon strategy 2020. The final factor taken into consideration was Career Counselling Service in Cyprus. The elements of the service which has influenced this study are the fact that the Service is offered at Cypriot schools under the umbrella of the Ministry of Education, Culture, Sport and Youth (MOECSY), the fact that very well-educated school counsellors are placed in all Public Secondary General and Technical School, and the broad services offered by the school counsellors covering both counselling and career guidance services.

Therefore, this section includes a brief description of Cyprus' history, underlining the principle historical events, which have significantly influenced the development of the educational system, the labour market as well as the family culture on the island. The structure of the Cyprus secondary school system and higher education are also described. Finally, the development of the Career Counselling and Educational Service in Cyprus is explained and the role of the service in Cypriot schools is described.

1.3.1 History of Cyprus

Cyprus is an island situated in the northeastern edge of the Mediterranean Sea. Cyprus' history dates back to seventh millennium B.C. It is the third largest island in the Mediterranean Sea, after Sicily and Sardinia of Italy, with an estimated population of 875,900. Around 8,000 are immigrants based on the latest statistics by the Cyprus Statistical Service (CYSTAT (a), 2018). Its size is 9,250 square km, and it is 225km long at its largest point and 97km wide at its widest point. The island is at the crossroads of three continents

Europe, Asia and Africa. Its nearest neighbours are Turkey, 65km to the North, Syria, 105km to the East and Egypt 340km to the South.

“Due to its unrivalled strategic position, Cyprus was subject to a number of conquerors and came under the influence of many different cultures and civilizations like for example the Phoenicians, Assyrians, Athenian Empire, Hellenistic Greek dynasties, Roman Empire” (COMPEDIUM, 2014, p.2). In the last four centuries, Cyprus was conquered by the Ottoman Turks (1571-1870) and then passed to the British Empire (1878-1960) as a British Colony from 1925, and ruled the island until 1960 when Cyprus gained its independence (Papadakis, 2008). According to the 1960 Constitution all Cypriot citizens belonged to either the Greek Cypriot Community (Greek origin), almost 80% of the population, or to the Turkish Cypriot Community (Turkish origin), 18% at that time.

After independence, the Greek majority of the island demanded union with Greece, which developed a tense situation on the island and finally failed after the unsuccessful coup staged by the then ruling military junta of Greece in 1974. The same year, Turkey invaded the island capturing 38% of the territory of the Republic of Cyprus, the Northern part which was the richest and most developed part of the island and which remains occupied until today (COMPEDIUM, 2014). After the Turkish invasion, one third of the Greek Cypriots who resided in the occupied area became refugees and moved to the southern part of the island and lost their property. Since that time, everybody was struggling to survive both financially and psychologically. Cyprus historical and cultural tradition is very rich as it has an adventurous history which indirectly affected the education in Cyprus (Kimitris, 2018). The above political situation had also an impact both on economy and society (Persianis, 2010).

It is important to highlight that the international community recognizes only the Republic of Cyprus and that this study is conducted within the area under the control of the Republic of Cyprus. Therefore, when the word Cyprus is used in this study it refers to the Republic of Cyprus controlling the southern part of the island and when the word Cypriots is used, it refers to the inhabitants in the Republic of Cyprus. It is also very important to clarify that the majority of them are Greek – Cypriots, they speak Greek and their religion is Greek Orthodox.

Cyprus during its long history has shown resilience in all aspects but mainly in its economy. Cyprus gained independence from the UK in 1960 and although it suffered a Turkish invasion in 1974, the Republic of Cyprus managed to become a member of the EU in 2004 and adopted the euro as its national currency in 2008 joining the Economic and Monetary Union and was listed as one of the 31 advanced economies in the world in 2016 despite the financial crisis in 2013. Throughout its history the Cypriot economy has experienced external shocks but due to hard work and collective focus managed to survive (Cyprus Profile, 2019).

Cyprus is a small free-market economy which nowadays promotes itself as the business gateway between Europe, Asia, the Middle East and Africa due to its position in the northeastern edge of the Mediterranean Sea (Cyprus Profile, 2019). After independence, the economy started with exporting minerals and agriculture products (1961-1973), then from the late 1970s to the early 1980s manufactured goods were exported and since 1980-1990s the island was transformed into an international tourist, business and services centre. “Today the economy is mainly built upon the services sector, including tourism, financial services and real estate, which accounts for over 80% of both total GDP and employment” (Cyprus Profile, 2019, p.19).

The island faced an economic crisis in 2013 when unemployment rate reached 36,2%, the highest in Europe among higher education graduates (Avgousti, 2018). Despite the crisis, Cyprus in 2014 held the second highest percentage of tertiary education in the EU, with 52.5%, compared to the other European countries which held 37.9% (EAC, 2015). The population in Cyprus are considered to be highly skilled and educated (CYSTAT (a), 2018; Cyprus Profile, 2019). Avgousti (2018) in his research supported that even during the economic crisis young people in Cyprus continue their studies and admissions in universities which made graduates transition from Higher Education to the labour market very difficult at that time. This recent experience in Cyprus is a very good example of the resilience adolescents experience relating to career decision self-efficacy beliefs and this could be explained taking into consideration the Cypriot context and the resilience the country has shown surviving after very difficult historical events (e.g. Turkish invasion in 1974) or economic difficulties (e.g. economic crisis in 2013) and the fact that parents in Cyprus support financially their children throughout their studies. Research (Avgousti, 2018) and statistics (MOECSY , 2018; CYSTAT (a), 2018) supported that Cypriot young people prefer admission to higher education. In 2017, more than half of the Cypriots, aged 30-34 were graduates of Higher Education which overcomes the EU target of 46% (CYSTAT (a), 2018).

Paul Willis (1977, 1978, 1997) explores the role of the structural organization of the labour market in choosing a profession and supports that the personal agency is framed and oriented by the labour market which act as restriction to personal agency. In addition, the fact that the economy on the island during the recent history was transferred from agriculture to tourism, business and services has also framed and oriented the fields of studies offered to both public and private universities in order to be consistent with the labour market demands (MOECSY, 2018). Although this could be very challenging for young people and their

parents to know that it would be easier for them to find a job in Cyprus if they follow specific studies due to the connection between universities and the labour market this could be considered as another restriction for their personal agency.

1.3.2 Cyprus' Educational System

Cyprus has always placed a strong focus on educating its population (MOECSY, 2012), but this has become more prevalent after the Turkish invasion. Before the invasion people invested a lot on the land since the area occupied by Turkey includes the richest and most developed regarding estates and cultivation. After abandoning their properties and moving to the southern part, Greek-Cypriots started investing more in their children's education (MOECSY, 2012).

The educational system in Cyprus is highly centralized and controlled by the Republic of Cyprus (Pashiardis, Savvides, Lytra, & Angelidou 2011). The administrative body of the Government is the Ministry of Education, Culture, Sport and Youth (MOECSY) which is in charge for all sectors of Primary Education, Secondary General Education, Secondary Technical and Vocational Education (STVE) and Higher and Tertiary Education, situated in the Republic of Cyprus (MOECSY, 2018). Until 1990, there was no university in the Republic of Cyprus.

The educational system in the island is free at all levels and compulsory for all children from the age of five to the age of fifteen (Nicolaidou & Georgiou, 2009). Schools follow the syllabi, curricula and schoolbooks that are supervised by the Ministry of Education, Culture, Sport and Youth. (Karagiorgi & Nicolaidou, 2010)

Cyprus' Secondary Education system consists of the Lower High School called Gymnasium and of the Upper High School named Lyceum or Technical school. Based on

the socioeconomic, cultural and national needs of Cyprus, Public Secondary General Education offers equal opportunities for education and aims at promoting knowledge focusing on general education and gradual specialization (MOECSY (a), 2020).

Upper High School is distinguished between academic and vocational education. According to MOECSY (MOECSY (a), 2020), secondary general education, Lower High School (12-15 years old) and Upper High School - Lyceum (15-18 years old), emphasizes general education and gradual specialization in order to prepare students for their academic or professional orientation. Upper High School - Secondary Technical and Vocational Education (STVE) (15-18 years old) prepares students to enter and compete successfully in the employment market as technicians and skilled workers. Therefore, most of the students attending STVE are more vocationally than academically oriented. STVE schools in Cyprus are considered to attract socially and educationally vulnerable young people (Molgat, Deschenaux, & LeBlanc, 2011). The programmes in STVE are offered in two directions, the theoretical and the practical direction, but the emphasis is on the technical/workshop specialization subjects depending on the socio-economic situation and the trends prevailing in industry and the labour market. Some examples of the fields of studies offered at STVE are mechanical engineering, plumbing, heating and cooling, welding and metal construction, automobile engineering. The programmes are offered at twelve public Technical and Vocational Schools of Education and Training spread in all areas of the Republic of Cyprus. There are three Schools in Lefkosia, three in Lemesos, two in Larnaka, two in the free area of the Ammochostos district, one in Pafos and one in Polis Chrysochou. Tertiary Education Cyprus' vision regarding Higher Education coincides with the conviction within Europe and internationally that the key to a strong economy and prosperity amongst citizens lies in education. Following the Greek philosopher, Aristotle's wise affirmation that "the fate of

empires depends on the education of youths” (Higher Education in Cyprus, 2012, p.15) Cyprus considers higher education as a strategic sector in order to achieve high skilled students, rich investments and technological and scientific development (Higher Education in Cyprus, 2012). It is very important to highlight that in 2017, more than half of the Cypriots, aged 30-34 were graduates of Higher Education which overcomes the EU target of 46% (CYSTAT, 2018).

The Department of Higher and Tertiary Education (DHTE) is the competent authority within MOECSY (MOECSY (b), 2020), responsible for all sectors and issues linked to Higher Education.

The first University of the island, ‘The University of Cyprus’, was founded in 1989. The University of Cyprus received its first undergraduate students in 1992 and its first postgraduate students in 1997. The ‘Open University of Cyprus’ was founded in 2002 and received its first students in 2006. Its mission has been to provide high quality academic programmes, to promote scientific research and to effectively utilize educational technology, teaching methodology in open and distance learning, thus reflecting the government’s policy to increase people’s access to lifelong learning and professional development. The following year, in 2007, the ‘Cyprus University of Technology’ was established to offer fields of studies related to applied sciences and technology. In 2007, three private Universities were registered and given Initial License to operate based on the legislation regarding the establishment and operation of private Universities in Cyprus” (MOECSY, 2018, p.27)

Tertiary education has been developed significantly over the last few years in Cyprus. The number of students attending Cypriot Higher Education has been increasing rapidly over the last ten years (MOECSY, 2018). The majority of undergraduate students are admitted to

the public Universities on the basis of their results in the Pancyprian Examinations, the competitive entrance examinations organised centrally by MOECSY. Postgraduate students are admitted on the basis of other criteria similar to those used by Academic Institutions in Europe and the United States (MOECSY, 2018).

There are 48 public and private institutions (three public universities, five public non-university institutions, four private universities and 36 private non-university institutions) with total enrolments of 45,263 students (MOECSY, 2018). According to the research conducted by Avgousti (2018) among youths in Cyprus, young people prefer admission to public universities because of the excessively high costs and the difficulty after the crisis of 2013, to take loans from the banks.

The goal of the Republic of Cyprus is to establish the island as an international educational, technological and research centre of excellence in alignment with the policies and measures followed by the European Union (i.e. the Lisbon strategy, EU2020). The MOECSY aims to promote lifelong learning by “increasing the available options to the opportunity regarding institutions of Higher Education, programmes and methods of study” (MOECSY, 2012, p.15). The basic goals and challenges of Higher Education in Cyprus is to achieve a more modern, transparent and inclusive Higher Education making students more employable in the current competitive markets. It also seeks to link education to industry, which has become one of the most important challenges of Europe, and make education accessible to all people, regardless of age, sex, societal and financial status. The public institutions receive funding from the national budget (MOECSY, 2012). Cyprus Universities have gained more and more reputation and climbed up international rankings. Therefore, although traditionally, Cyprus exported students mainly to Greece and UK, now more and more Cypriot students chose to stay and continue into Higher Education at home.

1.3.3 Career Counselling and Educational Service in Cyprus

The Career Counselling and Educational Service operate under the umbrella of the Secondary Education Administration of the Cyprus MOECSY. School counsellors are placed: a) in all schools of Public Secondary General and Technical and Vocational Education, b) at the central offices of the CCES at the Ministry of Education, Culture and Youth, and c) at the district offices. The aim of the specific service is the personal, social, educational and vocational development of high school students. The school career counsellor has a predominant, multiple, and essential role to play in the school. All counsellors appointed at schools are very well educated, and they all hold a degree which allows them to teach any subject taught at school and additionally held necessarily at least a diploma in career counselling and guidance. Some of them hold a master or a PhD in the subject.

The school counsellor's role, as the name itself of the specific service, reveals "Counselling and Career Guidance Offices", could be divided into two primary roles/services, that of the career guidance and the counselling services offered to students. The career guidance refers to the assistance given to students in discovering and developing their skills, realizing their personal needs, interests and expectations, acquiring the necessary objective information on the educational and occupational issues that concern them, and make autonomous decisions about their educational and professional future. Counselling is the science that aims to provide a person with specialized help and support so that the person can effectively cope with the various problems/difficulties that occur in their life. Specifically, school counsellors provide help to students to learn to cope with personal, family and social issues/problems that concern them (MOECSY (c), 2020)

Counselling on personal and career issues is offered through individual and/or group counselling. The career counsellors at schools cooperate and inform the Director, Assistant Managers, Heads of Departments, and/or other professors, in cases wherein their opinion it is necessary and to the extent justified by their position, role and competence, with the sole opinion of providing help and support to students. They also participate in Committees and cooperate with specialists like Educational Psychologists, Education for special need students and Training Associates, Clinical Psychologists and Psychiatrists of the Ministry of Health, the Department of Social Welfare Services, Police Officers and/or other specialists.

It is crucial to stress the very close cooperation school counsellors keep with the students' parents through individual or group meetings and lectures offered especially for parents covering issues related to educational or career choices as well as issues regarding how to deal with psychological issues that come up during adolescence.

The school counselling and career guidance service aims to help students acquire specific life skills enabling young people to survive and effectively manage their careers in an ever-changing world of work. Some of the skills the school counsellors aim to help students develop, as described in the website of the Cyprus MOECSY, are to develop positive self-esteem, self-approval and self-confidence, identify their abilities, interests and skills, use their unique capabilities and aptitudes to achieve self-awareness, acquire the right skills to deal effectively with personal, family and/or social issues in life, adjust to the school environment in order to progress both educationally and socially, develop critical thinking, develop the necessary skills that will allow use of appropriate information effectively and make well-informed decisions concerning educational, vocational and personal choices and learn about the nature and demands of various vocations as well as the current social, economic and cultural developments so that correct educational choice is made.

In practice, the school counsellors spend much of their time working with individuals or small groups of pupils (normally 2 - 4), both through timetabled sessions during class periods (usually around 45 minutes) or by being available for shorter sessions during breaks; sometimes pupils may be accompanied by their parents. These sessions can cover a wide range of issues such as: guidance on educational and career choices (sometimes using psychometric tests), disciplinary and relationship issues, smoking, drugs, alcohol, sexual and/or psychological abuse, and special needs education. Some counselors also run workshops for parents on topics like parent-child relationships. Through such means, they are acting as an important link between the home and the school (MOECSY, 2018).

Much research (Fukuyama, Probert, Nevill & Metzler, 1988; Betz & Luzzo, 1996; Luzzo, Funk, & Strang, 1996) suggested and implemented interventions which increased career decision self-efficacy beliefs. These interventions could be taken as good examples for future interventions programmes in Cyprus adjusted the Cypriot context. Literature (Lipshits-Braziler, Gati, & Tatar, 2015) suggested the use of the four sources of information of self-efficacy (mastery experience, vicarious experience, verbal persuasion and affective arousal), which were used for the parental questionnaire in this study, in order to enhance students' occupational self-awareness.

Therefore, the counselling implications and suggestions for improvement of the role of school counsellors in Cyprus that will come out of this study may be achieved through the existing structures of the counselling service as it offers in Cyprus schools. School counsellors, in Lyceums or Technical schools, have the opportunity, for example, to implement intervention programs, through the three days' obligatory program dedicated to offering opportunities to first graders to learn about the world of work. These three days could be dedicated to offering students the chance to experience various occupations or

organize visits to workplaces to talk to and experience different occupations. Besides, meeting and lectures with parents could also be organized, targeting the parents' empowerment of how to support their children with issues like dealing with negative emotions. Other teachers of the schools could also be involved in the process of supporting students gaining competencies and skills related to career decision self-efficacy through their subjects. Teachers could also be trained in how to help students through the training programs each school adopts during the year according to the specific aim for the year. Besides, school counsellors need to be informed about the findings of this study, which will help them to know their students better, and offer them training on the way they may offer interventions programs at their schools.

2. REVIEW OF THE LITERATURE

In this chapter the theoretical literature on which this study focused is presented. Career decision self-efficacy and social support are thoroughly examined by means of theories used through the years to explore the domains. Besides, previous relevant studies/research in the area are discussed.

Initially, the theoretical framework of the Theories of Career Choice and Development, which were developed through the years by career psychologists or and sociologists, are examined by means of their focus regarding career decision. Some of the theories concentrated on the content of career choice, others on the influence of both individual characteristics and environment to career choice, a few on the process of making a career choice, some others tried to consider both process and content. Career theorists also stressed the importance of converging theories as well as taking into consideration the constructivist approach (Chen, 2003; Patton & McMahon, 1999, 2006; Savickas & Lent, 1994; Osipow, 1990; Amundson, 2005). Then, a comparison between the two primary components of self-efficacy and self-concept connected to theories and their relation/influence on career counselling is employed and leads to the final step of deciding the theoretical framework of this study.

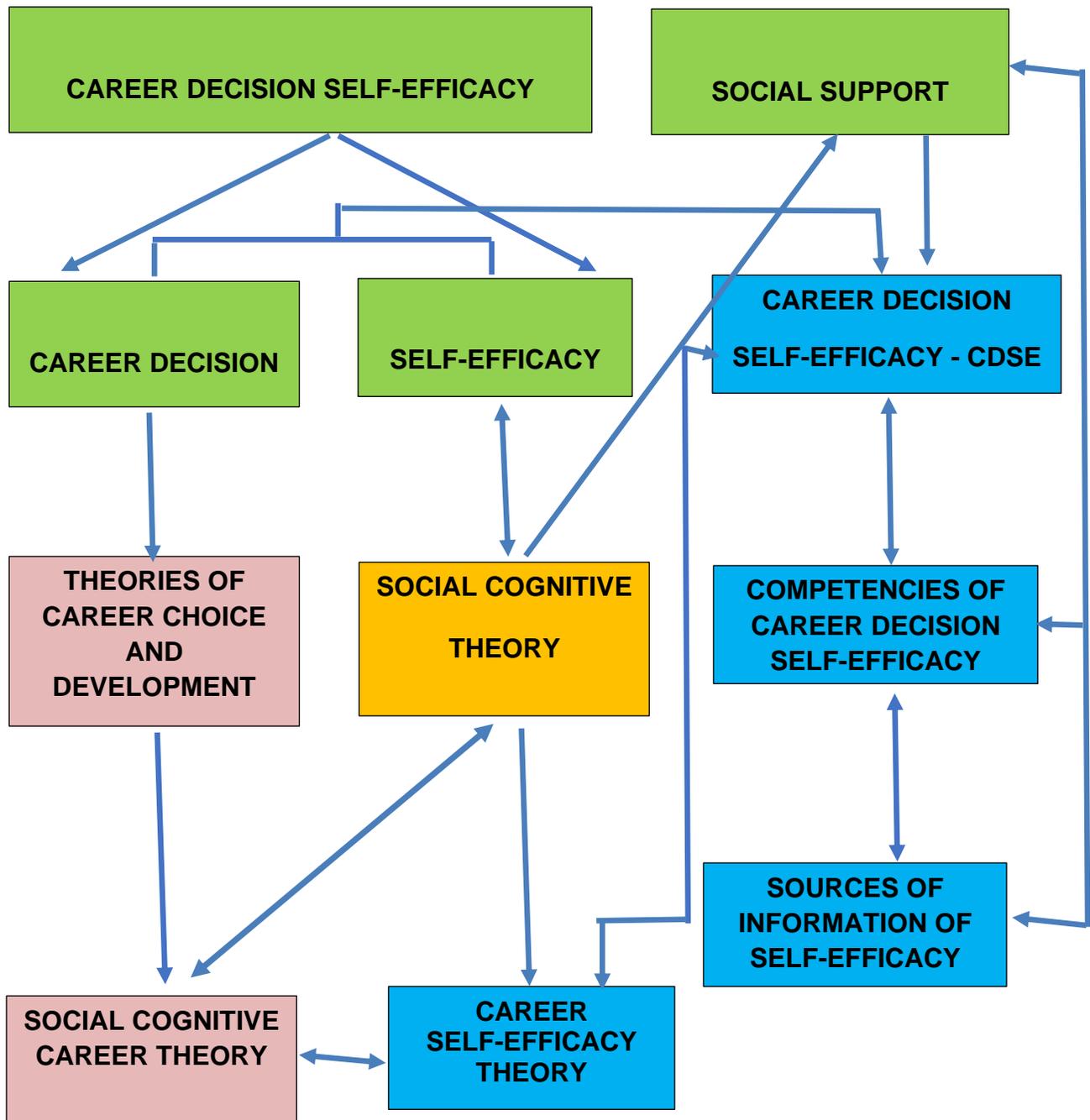
As a result of the extended study of the literature and the steps followed, Social Cognitive Career Theory (Lent, et al., 1994) has been chosen as the model that best fits the purpose of the study. The foundation of SCCT was Social Cognitive Theory (Bandura, 1986) (a) the primary component of which, as proposed by Bandura, is self-efficacy. Self-efficacy, as supported by Hackett and Betz (1981), can provide a framework for understanding career decision. Therefore, career decision self-efficacy (CDSE) is chosen as the primary

component of the study in order to understand adolescents' career decision in Cyprus. This choice is enhanced by the contention that counselling approach should be based on client's personal agency and not be counsellor oriented.

Then, self-efficacy beliefs are examined in terms of the four competencies, of goal selection, problem-solving, information gathering and goal pursuit management, by adopting Gaudron's four factor model (Gaudron, 2011). Regarding the social context that most influence CDSE, based on the review of the literature, parents are considered to have a vital role. So, the study concentrated on the parents' support in the means of influencing and enhancing self-efficacy beliefs. In order to measure the support provided by parents, four ways employed by parents to enhance self-efficacy beliefs, self-enhancement, reciprocal communication, parental active involvement and emotional support are investigated based mainly on the four sources of information of self-efficacy beliefs, proposed by Bandura (1994), mastery experience, verbal persuasion, vicarious experience and affective arousal. Figure 2 depicts the career decision making and social support model under investigation which was designed for the purpose of this study.

At the end, implications and suggestions, derived from relevant literature and research, are presented regarding career counsellors.

Figure 2: Career decision self-efficacy and social support theoretical model



2.1 Career Decision and Self-efficacy Theories

The theoretical framework underpinning this research is Bandura's (1986 & 1999) Social Cognitive Theory (SCT) as the basis to explain and understand human psychosocial development and, more specifically, self-efficacy beliefs and expectations. Besides, Social Cognitive Career Theory (SCCT) by Lent, Brown, & Hackett (1994, 2000) has been chosen to explain and understand this behaviour regarding career choice and development. The specific decision of the two theories has been made after a thorough review of all career theories presented below, which use the same concept of self-efficacy. Both theories serve the aims of the study to investigate adolescents' self-efficacy beliefs and assist to find out the role of parental support on adolescents' career-related self-efficacy beliefs. These theories are dynamic in terms of emphasizing personal agency and claiming that behaviour is not the outcome of the interaction between a person and the environment but a co-existing and co-interacting determinant (Bandura, 1986 (a); Lent et al., 1994).

Before ending up with the theories adopted for the proposed model of investigating career decision and support for adolescents in Cyprus, a thorough investigation of the prevalent career theories is executed in the frame of the focus they set.

2.1.1 Theories of Career Choice and Development

Theories of career choice and development explaining career behaviour began in the early twentieth century (Parsons, 1909). In the following subsection, the career choice theories are presented relevant to their primary focus. The early theories concentrated on the content of career choice, the characteristics of the individual and the workplace, known as trait and factor theories. The development of these theories connected individual and environment and led to person-environment fit theories. More emphasis was given to the

stages and process of career development, and the theories were known as developmental theories. In the following years (1990-2002), there was a focus on both content and process. Later (2003-until today), the focus fell on constructivist influences and the attempts to converge many career theories. A more detailed description in chronological order of the Development of Theories of Career Choice is presented in Appendix1.

The historical process of career development theory can be divided into six broad themes from Parsons (1909) as follows:

- a) Content - Theories that focused on the content of career choice and studied the characteristics of the individual and of the workplace. Most of these theories or approaches to career choice (e.g., Williamson, 1939; Rogers, 1942; Holland, 1985) emerged from Parsons' Trait and Factor theory (1909)
- b) Person – environment connection – Theories that emphasized the interrelation between the individual and one's social environment (e.g. Dawis & Lofquist, 1984; Walsh & Chartrand, 1994)
- c) Process – Theories that dealt with the stages and process of career development known as developmental theories (e.g., Super, 1957, 1990; Ginzberg, Ginsburg, Axerlad, & Herma, 1951) Content and Process – Theories that focused on both content and process, the interaction between the two and the role of cognition (e.g., Lent, et al., 1994; Lent, Brown, & Hackett, 2002; Peterson, Sampson, & Reardon, 1991 ; Peterson, Lumsden, Sampson, Reardon, & Lenz, 2002)
- d) Convergence – Theories that searched for a set of theoretical frameworks with universal validity and application; theories that emphasized the importance of the contribution from all theories and of exploring career behaviour and career decision-

making process as a whole (Chen, 2003; Patton & McMahon, 1999, 2006; Savickas & Lent, 1994; Osipow, 1990)

- e) Constructivism – Theories that stressed the influence of constructivism in career theory and its role in supporting individuals in a world of unexpected and rapid changes regarding workplace and individuals (e.g., Amundson, 2005).

Theories focusing on content

The content period began with Parsons (1909), who is regarded as the founder of the vocational movement, and one of the early theorists who proposed the talent – matching approach developed later into the Trait and Factor Theory of Occupational Choice. Parsons claimed that career decision making is possible when the individual firstly achieves a clear understanding of him/herself (aptitudes, abilities, interests, limitations), secondly acquires knowledge of occupations (requirements, conditions, advantages and disadvantages) and the labour market and finally has the ability to match the two in a rational and judgmental way. Parsons also stated that Individuals who actively engage in the choice of vocation are happier with their careers and have higher efficacy (1909).

Parsons conceptual framework dominated the 1920s & 1930s and was the basis for many theories which followed. For example, in 1939, Williamson expanded Parsons's Theory with a counsellor-centred approach, the Minnesota-Point-of-view Trait and Factor Counselling Theory. This theory stresses the role of the counsellor in teaching, helping, influencing clients through individualized counselling in understanding their aptitudes and relating them to achievable goals. Rogers (1942) challenged Williamson's theory and expanded Parsons theory with his client-centred counselling and therapy approach. Roger's Humanistic Theory of Personality emphasizes the importance of self-actualizing tendency in forming a self-concept. Clients are responsible for their own decisions, and the role of the

counsellor should be non-directive. Then, a psychologically-based theory emerged by Ginzberg, Ginsburg, Axerlad, and Herma (1951), called Lifelong Developmental Process, which challenges the static Parsons Trait and Factor Theory. Ginzberg et al. (1951) were the first to view career development as a lifelong process in the career-choice separating individual's life into three stages of career-choice, fantasy stage before the age of 11, tentative stage between 11-17 and realistic stage from 17 to young adult. This psychologically based theory, as developed by Ginzberg et al. (1951) described four influential factors for occupational choice, reality factor, educational process, emotional factor and individual values. Although they were the first to introduce the concept of development and life-long process in career choice, they characterize the process as a compromise.

Another theorist whose theory is considered to refer to content is John Holland, who started studying career theories in 1959 but a full version of his theory was published in 1973, revised in 1985 and 1997 (Holland, 1959, 1973, & 1997). Holland, with his Theory of Vocational Choice and Adjustment, extended Parsons's Trait and Factor Theory and transformed it from a static to a dynamic model by conceptualizing vocational interest, personal styles, and vocational environments, into six typologies, realistic, investigative, artistic, social, enterprising, and conventional (RIASEC). Holland with his typology denotes a person-environment interaction claiming that "people search for environments that would allow them to exercise their skills and abilities, and to express their attitudes and values". (Leung, 2008, p. 118). On the other hand, "in any given vocational environment, there is a tendency to shape its composition so that its characteristics are like the dominant persons in there, and those who are dissimilar to the dominant types are likely to feel unfulfilled and dissatisfied" (Leung, 2008, p. 118). Therefore, it is a dynamic process and at the same time

“it is predicted that the better the match, the better the congruence, satisfaction, and persistence (Holland, 1985(b))” (Kazdin, 2000, p.26). Holland’s theory has had a tremendous impact on practice because of the instruments he developed, and it is still the most influential model of vocational choice making. Research (Rounds & Tracey, 1996; Tak, 2004; Sverko & Babarovic, 2006) examining and validating Holland’s typology across cultures, suggested the need for conducting more research studies to examine cross-cultural validity (Leung, 2008).

Theories focusing on person – environment connection

The next step in the development of the theories referred to those focused on the importance of the person and environment connection. This period started with a Needs Theory Approach to Career Development developed by Roe Anne (1956) by which she classifies the career choice in two ways, person –oriented and non-person-oriented careers: “Person-oriented career: the individual satisfies needs primarily through interactions with people. Non-person-oriented career: the individual satisfies needs primarily by acting on things or ideas independently” (Jungers, LPCC-S, &Gregoire , 2012, p.320). Roe’s approach contribution to career theories emphasizes on the impact of childhood experience on career development and the classification of occupations (service, business contact, organizational, technology, outdoor, science, general cultural, arts and entertainment).

Krumboltz (1979) developed the Social Learning Theory of Career Decision Making (SLTCDM), attempting to explain the reason why people chose specific occupations. In 1996, he expanded this theory with Learning Theory of Career Counselling (LTCC), addressing career issues and problems and explaining how career counsellors can deal with them. Krumboltz, and Levin (2004) and Mitchell, et al. (1999) have both developed theories

introducing the role of Happenstance in career decision making, supporting the idea that career indecision could be even encouraged by counsellors and that individuals can benefit from unplanned events. They attempted to understand why individuals make specific career decisions by examining four factors, some of which were introduced for the first time in the explanation of occupational choice: a) genetic endowment which can enhance or limit career options—examining the role of race, sex, disabilities, talents etc., b) environmental conditions and events not controlled by the individual – considering technological development, facts which change the economy, social policies, job/training opportunities etc., c) learning experiences – viewing learning experiences as instrumental, taking into consideration antecedents behaviours consequences (e.g., if a student does well in a subject, she/he will most probably continue to show more interest in that subject than if she/he does poorly) and as association, taking decisions by associating similar situations (e.g., reading a story about a doctor who was infected by his patient may reduce the desire to study medicine) and d) task approach skills – understanding how and why individuals approach specific tasks (e.g., if a boy, by using self-observation in his class, compares his performance/ability in language with the class standard draws conclusion about his skills, his impression, negative or positive, would influence his response to future language classes). Krumboltz (1979) claims that acquiring a skill is the outcome of a reciprocal interaction among genetic endowment, environment and learning experiences.

Another theory that focused on the connection between the individual and the environment is the Theory of Work Adjustment (TWA) by Dawis and Lofquist (1984), which views occupational choice and development as a continuous process and tries to explain career development and satisfaction by investigating the correspondence between person and environment. The theory contends that individuals adjust themselves in jobs and

environments according to how are needs defined but at the same time environments search for individuals who meet and are able to cope with the needs of the organization. Satisfaction is used to show the degree to which the individual is satisfied with the environment, whereas satisfactoriness implies the degree to which the environment is satisfied by the individual. The most significant contribution of the theory is the variety of scales developed to measure the different variables such as satisfaction, correspondence, skills, abilities (Dawis, 2005).

Theories focusing on process

A different approach to the career choice field was attempted by theories which focused on the process of making a career choice. The first theorist was Super (1953) with Life Span Developmental Theory, where Super, although he recognized the valuable contribution of Trait and Factor Theory, supposed that vocational behaviour is too complex to explain by just matching individual and occupational traits. Therefore, he supplemented Trait and Factor Theory (Parsons, 1909), expanded developmental psychology (Ginsberg et al., 1951) and exploited personal construct psychology (Kelly, 1950). By doing that, he derived his ideas about self-concepts and sociological theory, and constructed his theory where career development is considered to be a lifelong process including five stages of career development that incorporate all ages, even after retirement: growth (age 4 to 13), exploration (ages 14 to 24), establishment (25 to 44 years old), primary tenancy (45 to 65) and disengagement (over 65). Each of these stages is characterized by some developmental tasks according to the age. In the beginning, Super gave this chronological view of stages but later, he acknowledged the possibility of an individual passing through exploration and establishment stages when starting a new career. Super's Life Span Developmental Theory made a significant contribution and impact on career practice and theory, and it is considered one of the most influential models (Brown et al., 2002). Super's theory contribution, apart

from the developmental perspective, has to do firstly with the perspective that selecting a career is the outcome of a series of decisions and not a single decision taken once, contradicting the claim of Ginzberg et al. (1951) claim that career decision making is taken once. Secondly, the phenomenological perspective which stresses the role of self-concept in developing career. Finally, the contextual perspective focusing, for the first time, on the role of the various social roles the individual has and the interaction among those roles through an individual's life. Super (1990) claimed that career development is preparing for an educational and occupational career and work adjustment during the lifetime. It is essential to say that Super continued to revise and refine his theory (Super, 1953, 1957, 1963, 1964 & 1980) throughout his life.

In 1981, Gottfredson published the Theory of Circumscription and Compromise which she revised in 1996. For Gottfredson, an individual's cognitive ability and the amount of information possessed are very important in order to understand career development and to acknowledge that career choice demands a high level of cognitive proficiency. People form their occupational aspirations by comparing their self-image with the image they have for specific occupations and by matching the two. Then, they conclude which kind of occupation is suitable or not for them. Occupation prestige and gender influence individuals' choices by then evaluating the appropriateness of various choices. Gottfredson contradicts the process of selection, established by other theories, by introducing circumscription and compromise, two processes that people may follow during career development. Circumscription is when individuals reject alternatives which they consider unacceptable, whereas compromise is "the process by which they abandon their most-preferred alternatives" (Gottfredson, 2002, p.100).

Gottfredson (2002, 2005) also elaborated on the career development theories that supported the crucial role of the interaction between environment and genetic characteristics but at the same time she claimed that, despite this interplay, the person is still an active agent in this process and may influence their environment. Therefore, she viewed career development “as a self-creation process in which individuals looked for avenues or niches to express their genetic proclivities within the boundaries of their own cultural environment” (Leung, 2008, p.123).

One of the basic criticisms of the theory is that it does not discuss adult development as the developmental model consists of four stages of circumscription until the age of 14 and below without any reference for adults. The most significant contribution of Gottfredson’s theory is the fact that it offers a framework which could be used to explain the influence of prestige and gender in diverse cultural contexts (Leung, 2008).

Theories focusing on content and process

The content and process period focused on the interaction between content and process and the role of cognition in the career development. A very good example of this period is Lent, Brown, and Hackett (1994, 2002) who developed Social Cognitive Career Theory (SCCT) as a theoretical framework to explain career development grounded in Bandura’s Social Cognitive Theory (SCT) (1986 (b)) and Hackett and Betz’s (1981) career self-efficacy theory.

The above two theories, which belong to the content and process period, were employed in this study in order to answer the research questions. More specifically, SCT (Bandura, 1986) is used to understand firstly, the content of self-efficacy beliefs and how they are learned, formed and modified, and, secondly, to understand adolescents’ behaviour

and their parents' role. SCCT (Lent, et al., 1994, 2002) is employed to understand the process of making career choices, how these choices are related to self-efficacy beliefs and if this process is influenced by gender and parents' educational level. The following section presents the two theories and their use in relevant research in more depth.

Converging Theories

A convergence period began to happen when career theorists (Osipow, 1990; Patton a McMahon, 1999, 2006; Chen, 2003; Savickas, & Lent, 1994), taking into consideration the rapid changes occurring globally which inevitably influenced the workplace and individual careers, proposed the convergence of career theories. Osipow (1990), analysing the four theories of Super, Holland, Lofquist and Dawis, and Krumboltz, found common concepts like life-stage influences, genetic factors, the role of the parents and personality. Unifying career theories is not an easy task as the concepts associated with each theory vary (e.g. self-efficacy and self-concept). Theorists supporting convergence believe that it is essential to explore the career decision-making process taking into consideration the relationship among all elements introduced by the various theories.

Therefore, it was proposed that career choices can be viewed, explained or understood from three different perspectives: a) the decision-theory perspective as decision-making process, b) the career development theories (Gottfredson, 1981; Mitchell, 1990; Savickas, 2005; Super, 1972, 1990) perspective which focuses on the effects on career decision by the changes that occur during individual's development like one's preferences, maturity etc., and c) the Person – Environment Fit approach (Dawis & Lofquist, 1984; Holland, 1997) which focuses on the outcomes of the career-decision process from the interplay between individuals and their environment. Gati and Tal (2008) suggested that “the three perspectives

– decision theory, development theories, and P-E fit – appear to complement each other from both the theoretical and the practical points of view” (p.180) to serve the goal of career counselling in helping clients to make better career decisions.

Constructivism is a learning theory which is founded in psychology and suggests that learning is achieved by fitting the new information with what is already known. It is an approach which claims that learning is influenced by the context and by individuals’ beliefs and attitudes. The theory holds that individuals construct knowledge and meaning from their experiences (Brown & Krunkel, 2002). Amundson (2005) suggested that the advances of constructivism should be used to explain individual behaviour and support personal development related to career development as well.

Apart from the way the career decision making process is presented in the two theories employed for the purpose of this study, it is very important to recognize that there is a strong sociological tradition which seeks to account for career decision making in a rather different way although it has some similarities with SCCT but at the same time focus on some of the limitations people face when they make career decisions.

Hodkinson and Sparkes (1997), for example, introduce the sociological theory of career decision making called “careership”. They present a new model drawn from Pierre Bourdieu (1990), which supports that a career decision has three dimensions, “(i) pragmatically rational decision-making, located in the habitus of the person making the decision, (ii) the interactions with others in the (youth training) field, related to the unequal resources different ‘players’ possess, and (iii) the location of decisions within the partly unpredictable pattern of turning-points and routines that make up the life course” (Hodkinson & Sparkes, 1997 p.29). Although the model recognizes the role of the contextual factors and

the personal agency of individuals in making career choices similar to SCCT, it focusses on the limitations of social determinism and not seeing people as free agents.

Roberts' (2009) Opportunity Structure Theory (OST) stresses the importance of opportunities derived from interrelationships between the family background, education, labour market processes and employers' recruitment practices. All these agents are also recognized as important ones by SCCT but OST highlights that the reason for "wrong choices" lies in the opportunities young people have.

Paul Willis (1977, 1978, 1997) explores the role of cultural processes within schools and its connection with the labour market. He also expresses the belief in personal agency like SCCT in choosing a profession but he supports that the personal agency is framed and oriented by the institutional location of the school and the structural organization of the labour market which act as restrictions to personal agency.

The social practice theory of career guidance by Thomsen (2012) highlights the importance of the community for career guidance practitioners in the sense of the collective practice as a model for reflexive practice (Thomsen, 2017). People from the same community join forces with career guidance practitioners to discuss community issues, explore themselves and the social context they live, learn and work, and learn how to make the most of their situation (Hooley, 2015). Although Thomsen (2012) stresses the importance of structural issues in career guidance process at the same time recognizes that community and the way practitioners work may limit career choices.

The following section concentrates on discussing in depth the concepts of self-efficacy beliefs, career decision and parental support as perceived and interpreted by the two theories employed for this study. It also presents relevant research.

2.1.1.a Social Cognitive Career Theories

Social Cognitive Career Theory (SCCT) has been developed by Lent, Brown, and Hackett (1994, 2002). It can be characterized as the first attempt to converge previous theories offering a theoretical and comprehensive framework to explain and understand the career development, career choice and performance, grounded in Bandura's social cognitive theory (1986) and self-efficacy, influenced by the interaction between the person and the environment but assuming that compromise in career choice may be necessary due to the individual's contextual characteristics (lack of support, cultural beliefs, social barriers).

The theory describes career development as a process which can be understood by using three different models in career and academic pursuits: a) Interest Development Model – explains how individuals develop their academic and vocational interests, b) Choice Model – how individuals make educational and career choices and what actions they make to implement their choices and c) Performance Model – the level of individuals' accomplishments, educational and career performance and the persistence of their behaviour (Lent et al., 2002).

The three basic variables in the developmental process are *self-efficacy*, *outcome expectations* and *personal goals*. Self-efficacy is defined as “a set of beliefs that are linked to particular performance domains and activities” (Lent, 2005, p.104). A person's behaviour is influenced by their self-efficacy. Outcome expectations are “personal beliefs about the consequences or outcomes of performing particular behaviour” (Lent et al., 2002, p.162). These beliefs are shaped by the same experiences and information as those which form self-efficacy beliefs. “Personal goals refer to one's intention to engage in specific activity or to generate a particular outcome (Lent, 2005)” (Leung, 2008, p. 125). SCCT claims that career

goals and choices development are a function of an interaction among self-efficacy, outcome expectations and interest. SCCT is considered to be a dynamic theory as people are thought to exercise personal agency to change; and person-environment interaction is seen as a triadic-reciprocal relationship, based on Bandura's model (1986). "Personal attributes, external environmental factors and overt behaviour interact bi-directionally and, therefore, behaviour is a co-determinant, not an outcome" (Brown, 2002, p. 261).

Therefore, SCCT considers necessary and evaluates the role of other contextual variables such as gender and socioeconomic conditions which are thought to affect the development of career-related self-efficacy. Gender is seen as "a socially constructed concept that includes the psychological, social, and cultural implications of sex" (Lent et al., 2002, p.268). Parents treat their children differently according to their perceived gender in terms of the activities they encourage them to participate in based on cultural expectations about gender-oriented behaviour (Arbona, 2000; Eccles, 1994). Girls are likely to have high self-efficacy for female-typed activities and feel less efficacious in activities culturally characterized as masculine (Hackett & Betz, 1981). Family, economic conditions also seem to be a variable that shapes self-efficacy in terms of the learning opportunities to which the individual is exposed (Lent, et al., 2002).

SCCT suggests that the impact of parental support may depend on the way the child responds and interprets the support. Lent et al., (2000) stressed the critical aspect SCCT highlights to distinguish between objective and perceived support. Each party, parents and students, may interpret differently supportive parental behaviour. Most studies until today have been researching solely from the students' perspective on how supportive their parents are (Turner & Lapan, 2002; Alliman-Brissett, Turner, & Skovholt, 2004; Constantine, Wallace & Kindaichi, 2005; Guan, et al., 2016; Wang, Fan, Cheung, Wang, & Li, 2019;

Thorslund, Alfredsson, and Axberg, 2019; Mao, Hsu, & Fang, 2017; Retnam, Asmuni, & Hamzah, 2018; Liang, Zhou, Dou, Cao, Li, Wu, ... & Nie, 2020). The specific process of trying to make sense of the way each party perceives support stresses the ability of the individual to exercise personal agency. Parents may interpret the support they provide as helpful and beneficial but may not take into consideration adolescents' needs for autonomy and competence (Garcia, et al., 2012). Parents' behaviour related to career-related support may be perceived as controlling rather than facilitative and may hinder personal career choices and interests (Schultheiss, Kress, Manzi, & Glasscock, 2001). The primary innovation of the current research is that it attempts to investigate the perception of each party on students' self-efficacy expectations and parental support. The attempt is to be able to compare and write down the way each party perceives parental support and self-efficacy.

In SCCT individual/personal factors such as socioeconomic status (SES), gender and race interact with contextual factors e.g. social support to influence the career development in terms of career interests, selection of career goals, career behaviours. For example, the individual's SES determines the experiences one could have, which in turn influence the career development process. An adolescent from a lower SES in comparison with an adolescent from a higher SES will probably experience fewer career role models, less financial support and poorer quality school (Brown, Darden, Shelton, & Dipoto, 1999) which may have a negative effect on self-efficacy beliefs and outcome expectations. A large number of research studies were conducted with international samples as well (Nota, Ferrari, Solberg, & Soresi, 2007; Patton, Bartrum, & Creed, 2004; Hampton N.Z, 2005). These studies have revealed a positive relationship between career self-efficacy and parental support illustrating the important role of self-efficacy in career decision.

SCCT has been primarily used in research (Lent, Brown & Hackett, 1996; Lent, et al., 1994, 1996; Betz & Luzzo, 1996; Mendez, Conley, Keith, Haynes, & Gerhardt, 2017; Byars-Winston & Rogers, 2019; Tran & Von Korfflesch, 2016; Raque-Bogdan & Lucas, 2016; Dos Santos, 2018) to investigate cognitive person variables (self-efficacy, outcome expectations, and goals) which individuals can use to influence their own career development and the only extra factor they examined to see if it enhances or constrains personal agency was that of gender. More recently researchers have turned their attention to investigate the positive or negative influence of contextual/environmental variables (e.g., parental support) (Lent et al., 2000; Flores & O'Brien, 2002; Fan & Williams, 2010). Besides, mainly all research concentrated on measuring participants' self-efficacy from self-reports.

SCCT is grounded in Bandura's Social Cognitive Theory (1986a) and Hackett and Betz's (1981) career self-efficacy theory. The two theories will be presented focusing on the primary features which may be useful for the analysis and interpretation of the results of the current study.

2.1.1.b Social Cognitive Theory

Social Cognitive Theory (SCT) (Bandura, 1986a, 2001, 2014) originates in clinical-social psychology. Many theories over the years attempted to explain human functioning. They differ in the way they conceive human nature and in what they consider as the key determinants of human motivation and action. The unidirectional models explain behaviour by using one determinant, either environmental influences or internal dispositions. In contrast to unidirectional models, with SCT Bandura (1986a) proposed a model which explains psychological functioning with a triadic reciprocal causation. Behaviour is not the result of the influence of a determinant but a determinant by itself in a triadic relationship where

behaviour interacts and influences and is influenced bidirectionally with the other two determinants, cognitive and other personal factors, on the one hand, and environment, on the other. The determinants in this model are not of equal strength and the influences do not occur at the same time.

Vocational and personality psychologists paid great attention to Bandura's model proposed by Social Cognitive Theory. Bandura (1997) primarily focuses on human motivation to explain goal-directed behaviours which has been used in many domains from management (Wood & Bandura, 1989), choice to initiate sex (McQuestion, Ahiadeke, Posner, & Williams, 2012) to health (Bandura, 2004).

The domain in which SCT had a prominent role is career development. Vocational psychologists and researchers (Judge, et al., 2005; Lent et al., 1994) emphasize motivational processes in order to understand career development. Bandura (2001) proposed that human motivation is governed by three social cognitive variables: outcome expectations, goals, and self-efficacy expectations. Outcome expectations are simply the individuals' beliefs of the consequences of their behaviour (Bandura, 1989). Regarding career development, outcome expectations are possible outcomes of career decisions and behaviour. Goals have a predominant role in determining career behaviour and the final outcomes in the sense that they motivate individuals cognitively to real actions. Outcome expectations influence positively or negatively the kind of goals, but goals themselves are the ones which activate the behaviour. Bandura (2001) claims that successful projects are achieved if the individual works towards primary goals through intermediate goals, proximal sub-goals (Bandura, 1997). Self-efficacy is the theory's central construct (Bandura, 1977, 1997) referring to the individual's beliefs in their ability to have specific behaviour.

Social Cognitive Theory has been chosen because it best serves the aims of this study, not only for investigating career decision self-efficacy, but also for interpreting the results and as a source of guidelines for intervention programs for school counsellors and parents.

The theory can provide an essential framework for the interpretation of the results by the way it explains and perceives human functioning from the social and psychology field.

Initially, the theory considers that "the human mind is generative, creative, proactive, and self-reflective not just reactive" (Bandura, 1999, p.5). The perception that people, through the mechanism of personal agency, have the ability and the power to influence their actions implying that people can control their thoughts, motivation and actions. Human agency can be performed in three different models: a) direct personal agency, the individual itself controls their functioning, b) proxy agency, the individual relies on the others to act on behalf of him/herself to have the desired outcomes and c) collective agency where people act through coordination and interdependent effort to achieve the desired outcome (Bandura, 2001). During everyday life, people may choose to exercise any kind of agency, depending on the sphere of functioning. If, for example, they do not have access to the resources needed for a specific situation, they may choose an expert to do that on their behalf in order to save time and secured successful outcomes. Children may ask, for example, their parents or the school counsellor to find information for them, because of lack of time or access to do so. Collective agency, when chosen, gives the opportunity to the group members to interact, coordinate, share intentions, knowledge and skills. In collective agency, group members experience life skills necessary for their everyday functioning.

Social Cognitive Theory stresses the importance of two human capabilities which are derived from and are guided by human agency: self-regulation and self-reflection. Self-

regulation referring to individuals' ability to regulate their behaviour, despite the environmental influences, by evaluating their feelings. Another human capability is that of people's reflection not only on the experiences they have but also on their thoughts. Reflection is a very useful process by which individuals show that they not only monitor their actions, but they can learn from their experiences and adopt or change their approach in the future.

Besides, the theory suggests ways to be more effective on observed behaviour. Firstly, if the individual has high self-efficacy beliefs performs the behaviour correctly and consequently experiences successful learning. Secondly, if the feedback received after the performed behavior is positive then the individual's self-efficacy beliefs get higher. Finally, if the individual's environment offers appropriate support or information needed then the individual will be more capable of completing the behaviour successfully.

2.1.1.c Career Self-Efficacy Theory

Career Self-Efficacy Theory (Hackett & Betz, 1981) emerged when Bandura's self-efficacy theory (1977, 1986 (b), , 1997) was first applied to career development by Hackett and Betz (1981) with their study on women's career development and specifically on women's restriction on choosing scientific and technical careers. With their study, they supported that self-efficacy theory can provide a framework for understanding self-efficacy and career choice. The findings indicated that although there are no significant differences between men's and women's self-efficacy beliefs, when it comes to traditional and non-traditional occupations significant differences between men's and women's self-efficacy beliefs were found. Women showed greater self-efficacy beliefs in traditionally female occupations like secretary, social worker, home economists and men showed greater self-

efficacy beliefs among traditionally male occupations like mathematician, accountant, engineer. The study also revealed that women's low perceptions of their capability regarding non-traditional female occupations was the primary reason for not choosing them, although they had the same capabilities as the men. The research also showed that women's low self-efficacy in non-traditional female occupations varied for different kind occupations as they seemed to choose occupations that are traditionally chosen by men like lawyer and physician.

Hackett's and Betz's (1981) attempt to apply self-efficacy theory to career development seemed to be successful as it showed that self-efficacy expectations are related to the career choice process and suggested that self-efficacy theory is very useful in understanding vocational behaviour (Johnson, 2019; Fatima, Asghar, Khatoon, & Fatima, 2017; Chan, 2018; Harlow & Bowman, 2016; Wright, 2017).

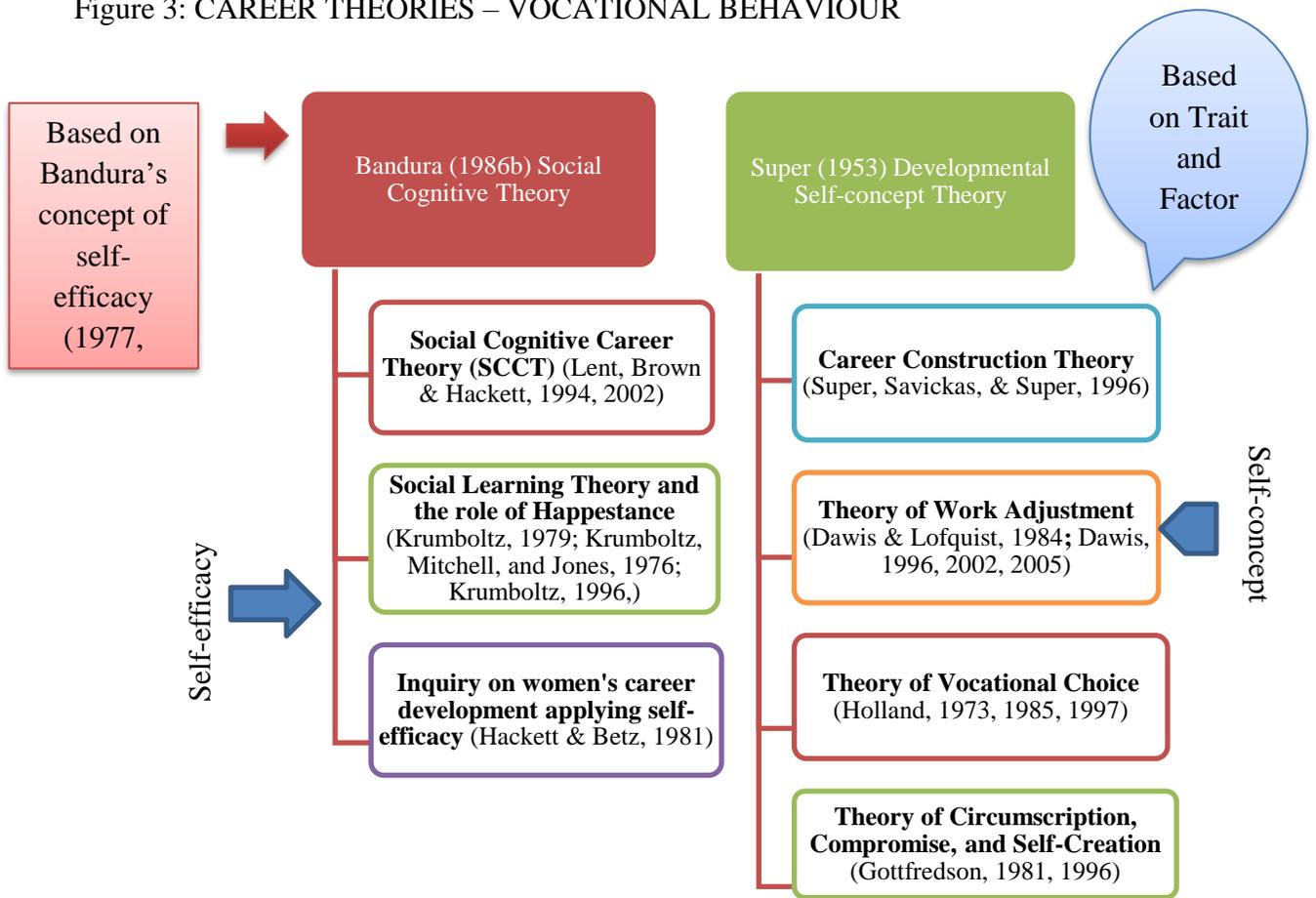
2.1.2 Career Theories and Vocational Behaviour

In order to further define the theoretical framework of this study, comparison among theories regarding the primary component, self-efficacy or self-concept, and the counselling approach is attempted. Career theories may be divided into two primary categories according to the concepts they are based on (Figure 3). The first group included theories based on Super's Developmental Self-concept Theory (1953) which are Trait-oriented theories such as Career Construction Theory (Super, Savickas, Super, Brown, & Brooks, 1996), Theory of Work Adjustment (Dawis & Lofquist, 1984; Dawis, 1996, 2002, 2005), Theory of Vocational Choice (Holland, 1973, 1985, 1997) and Theory of Circumscription, Compromise, and Self-Creation (Gottfredson, 1981; Gottfredson & Holland, 1996); the second group includes theories based on Bandura's self-efficacy (1977, 1997) such as Social Learning Theory and the role of Happenstance (Krumboltz, 1979, 1996) and Social Cognitive Career Theory (Lent, et al., 2002). The primary difficulty in trying to converge career theories was the different conceptual frameworks of each theory. Osipow (1990), in his attempt to converge career development theories, claims that, although theories use different concepts or use concepts differently, one thing that all theories have in common is that vocational choice is the outcome of a person – environment interaction.

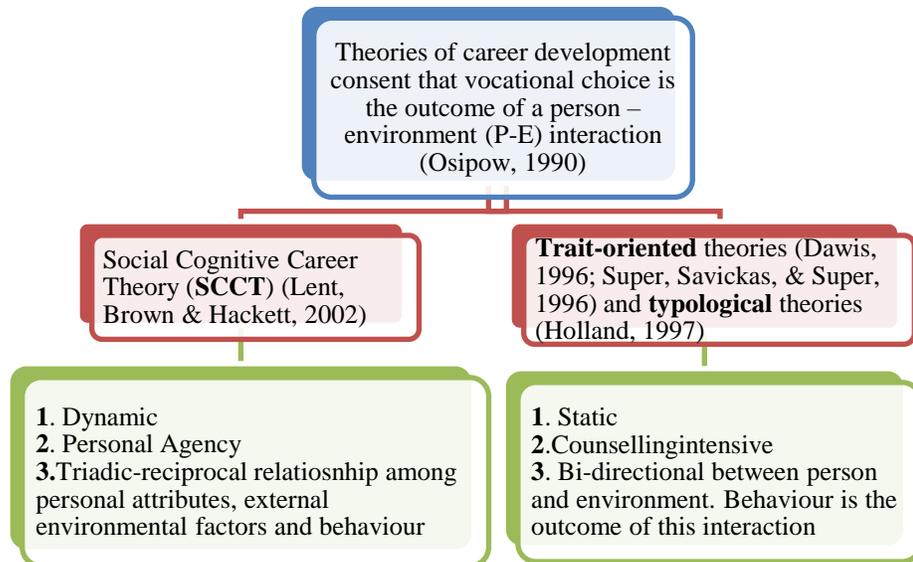
As well as being based on different foundations, the two sets of theories mentioned above are different in other ways, too (Figure 3). The theories that fall into the first category (based on Super's self-concept) are static, counselling intensive and counsellor oriented. Besides, these theories claim that behaviour is the outcome of the interaction of a bidirectional relationship between the person and the environment. The second category, based on Bandura's self-efficacy, is the development of the first category theories, which is considered to be dynamic as they claim that the individual is an active agent in the career

development process; they contend that a counselling approach should be non-intensive and should be based on the client's personal agency; they claim that personal attributes, environmental factors, and behaviour have a triadic reciprocal relationship with each other and they take into consideration the rapid changes (unexpected events, economic crisis) happening globally and the influence such changes may have on the individual's career choices and the workplace.

Figure 3: CAREER THEORIES – VOCATIONAL BEHAVIOUR



COMPARISON AMONG THEORIES



In this study, self-efficacy is chosen as the fundamental component under investigation and Social Cognitive Theory and Social Cognitive Career Theory as the two theories to help analyse and interpret the results of the study. The implications for school counsellors and parents are also based on the way the two theories view, explain and define counselling interventions.

2.2 Self-efficacy beliefs – the role of self-efficacy beliefs in career decision making

The theoretical framework of career decision adopted was described above in order to understand and interpret the career decision process. . Besides, the study focused on the concepts of self- efficacy beliefs and social support by employing a holistic approach. Therefore, it investigated theoretically these concepts towards understanding the impact they have on individuals' career decision making.

In this subsection, the concept of self-efficacy is examined. Initially, a definition of the concept of self-efficacy beliefs is provided based on Bandura's approach. And then, a description of the processes through which self-efficacy beliefs affect human behaviour, in general and career decision more specifically, is initiated. The role of the individual's behaviour as an indicator of self-efficacy beliefs is also explained. The concept of self-efficacy beliefs is discussed in terms of their role and the influence on a career decision. Finally, studies referring to gender differences regarding career-related self-efficacy beliefs are presented.

2.2.1 Self-efficacy beliefs

Perceived self-efficacy is defined by Bandura (1994) as:

“as people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes, cognitive, motivational, affective and selection processes” (p.27).

It is important here to distinguish between self-efficacy and self-esteem. Self-efficacy is judging one’s capability, whereas self-esteem is judging one’s self-worth (Chen, Gully, & Eden, 2004).

The attempt to investigate, understand and interpret self-efficacy beliefs is enhanced by acknowledging the possible effects of self-efficacy beliefs on human behaviour. These effects are observed through the processes mentioned above.

Cognitive processes are affected by self-efficacy beliefs in the sense that individuals’ choices in life are the result of a specific cognitive process including goal setting, action-planning, prediction of events, and persistence in the face of difficulties and failures. The thinking is affected by self-efficacy beliefs which may aid or hinder individuals. In more detail, firstly, thinking can change goal setting: “The stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them” (Bandura, 1994, p.3). Secondly, the cognitive process affects action-planning, which is initially organized in thought. Self-efficacy beliefs influence the type of scenarios constructed for action planning. Highly efficacious individuals foresee success scenarios. Those with weak self-efficacy beliefs anticipate failure scenarios and focus on the things that

can go wrong. Thirdly, cognitive processes can affect prediction of events, one of the major actions of thought, and which may lead to developing ways to control the effects of the events on an individual's life. This process is a purely cognitive one that can be achieved by constructing various options, integrating predictive factors, testing and revising judgements about the distal and immediate results. Finally, cognitive processes affect persistence in the face of difficulties, remaining task oriented in difficult and stressful situations. The whole process implies the choice of challenging goals and good analytic thinking, characteristics of individuals with resilience. In contrast, individuals who fight with self-doubts about their self-efficacy do not have stable analytic thinking, lower their aspirations, and their performance is weaker (Bandura, 1994).

The motivational process for most people is cognitively generated. Cognitive motivators have three different forms. First, causal attributions are described as the way individuals explain/perceive the cause of their failures which is influenced by one's self-efficacy beliefs. Individuals who have a high sense of self-efficacy regard their insufficient effort as the cause of failures, but those who doubt their efficacy ascribe their failures to low ability. Second, outcome expectancies are defined as the individuals' anticipations for possible outcomes of future actions which partly lead them to specific options. Thus, self-efficacy beliefs influence individuals' motivation to pursue specific options. And third, cognized goals which refer to the assumption that self-efficacy beliefs influence motivational processes through goals in various ways. Self-efficacy beliefs determine the goals individuals set, the amount of effort individuals are going to expend, and how long they persevere in the face of failures or difficulties (Bandura, 1994). Three different theories were generated corresponding to the three cognitive motivators: attribution theory, expectancy-value theory and goal theory. Bandura (1989) stressed that "the important matter is not that difficulties

arouse self-doubt, which is a natural immediate reaction, but the speed of recovery of perceived self-efficacy from difficulties” (p.1176).

In affective processes “perceived self-efficacy to control thought processes is a key factor in regulating thought produced stress and depression” (Bandura, 1994, p.5). According to Bandura (1994) self-efficacy beliefs influence the way people exercise control of their thoughts. People who believe they have low efficacy to exercise control experience depression and anxiety. Depression and anxiety, in turn, affects health functioning like dealing with stress.

According to selection processes, self-efficacy beliefs are considered to influence individuals’ choices. According to Bandura (1994):

“People avoid activities and situations they believe exceed their coping capabilities. But they readily undertake challenging activities and select situations they judge themselves capable of handling. By the choices they make, people cultivate different competencies, interests and social networks that determine life courses. Any factor that influences choice behaviour can profoundly affect the direction of personal development” (p.28).

The impact of the influence of self-efficacy beliefs through selection processes is evident in career decision-making and career development (Betz, and Hackett, 1986; Lent, and Hackett, 1987). The higher an individual’s self-efficacy beliefs are, the wider the career options he/she considers, and the better the educational preparation is. Bandura (1989) claims that individuals more often limit their career development due to low self-efficacy than inability.

The effects of self-efficacy could be a piece of valuable information for researchers to understand better human's career decision behaviour.

Besides, Bandura (1994) expands further and explains how high self-efficacy beliefs affect peoples' behaviour. People believing profoundly in their capabilities face challenging tasks in their lives as challenges rather than as threats. Therefore, they set challenging goals and persevere to achieve them. In case of failures, they increase and sustain their efforts and at the same time recover quickly their self-efficacy beliefs. They interpret failures as a result of their insufficient effort or lack of knowledge. When they face difficult situations, they have the confidence that they can handle them. "Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression." (Bandura, 1994, p.1).

On the contrary, people with low self-efficacy beliefs avoid difficult tasks and consider them as personal threats. They do not believe they can accomplish their goals and cannot be committed to them. When they face challenging tasks, they fixate on their deficiencies and the obstacles they may have instead of considering ways to succeed. They abandon efforts quickly and recover their self-efficacy beliefs after failures slowly. They very quickly lose faith in their capabilities. People with low self-efficacy are prone to stress and depression (Bandura, 1994). According to Betz and Luzzo (1996, p.414), "low self-efficacy expectations regarding a behaviour or behavioural domain lead to avoidance of those behaviours, whereas stronger self-efficacy expectations should lead to approach behaviour".

Therefore, according to Bandura (1977), self-efficacy beliefs can be expressed in behaviour with at least three indicators: approach vs avoidance behaviour, quality of performance, and perseverance in the face of difficulties. Betz and Hackett (1997, p. 385)

argued that “low self-efficacy expectations regarding a behaviour or behavioural domain lead to avoidance of those behaviours, poorer performance, and a tendency to give up at the first sign of difficulty”. The level of the difficulty of tasks also plays a role in the degree it affects self-efficacy beliefs. The development of resilient self-efficacy beliefs is the result of mastering challenges through continuous effort. When people experience successes with easy tasks their self-efficacy beliefs can be diminished easily with a failure. Whereas if their effort to succeed demanded sustained effort, then their self-efficacy is higher. If they encounter difficulties, they persevere, and if failure is experienced, they quickly rebound (Bandura, 1989).

Bandura (1994) chooses to use the term “persevere” instead to “persist” to describe the individual’s reaction when facing difficulties in order to express that they keep trying and show insistence despite the difficult situations. The Oxford Wordpower Dictionary (2012) defines the word persist as “to continue doing something even though other people say that you are doing wrong or that you should not do it: *If you persist in making so much noise, I shall call the police*” (p.541). This highlights that in persistence there is a sense of dedication and commitment which can sometimes be negative for the individual. Therefore, the key feature in persistence is single-mindedness of the individual to achieve a goal. The word persevere is defined as “to continue trying to do or achieve something that is difficult: *The treatment is painful but I’m going to persevere with it*” (Oxford Wordpower Dictionary, 2012 p.541). Perseverance implies overcoming obstacles or difficult situations through strong determination, and it is considered to be a good behaviour that drives to success and achievement helping the individual to overcome challenges. Great achievements for example have been the result perseverance. Perseverance requires a personified agent exercising

willpower to overcome successfully challenging and difficult situations which is aligned with the tenets of SCT and the role of personal agency.

Research confirms that self-efficacy expectations play an essential role in career choice and development (Bandura, 1997). Bandura et al. (2001) argue that:

“the higher people’s perceived efficacy to fulfil educational requirements and occupational roles, the wider the career options they seriously consider pursuing, the greater the interest they have in them, the better they prepare themselves educationally for different occupational careers, and the greater their staying power in challenging career pursuits” (p.188).

Research has also revealed that self-efficacy expectations predict occupational choices (Lent, Brown, & Larkin, 1987; Hackett & Betz, 1995) in contrast to theories based on personality matching (Holland, 1985 (a)) which are not predictive.

Both theory and research support that self-efficacy beliefs highly predict the level of accomplishments individuals chase and achieve. Justifiably then, Bandura (1996) considers self-efficacy beliefs as a critical factor of human agency.

2.2.2 Self-efficacy and career decision

Self-efficacy was firstly introduced to career development by Hackett and Betz (1981) supporting the influence of self-efficacy on the career decision-making process. In 1983, Taylor and Betz defined career decision self-efficacy as the individual’s belief that he/she can act successfully to make career decisions. They developed the CDSES which is a self-report inventory measuring self-efficacy for the five variables Crites (1978) suggested: self-appraisal, gathering occupational information, goal selection, making plans and

problem-solving. Researchers (Multon, et al., 1991) later gave strong support to this, and the scale was used widely to measure self-efficacy beliefs among various populations like Turkish university students (Buyukgoze-Kavas, 2014), Italian high school students (Presti, Pace, Mondo, Nota, Casarubia, Ferrari, & Betz, 2013) and Asian and European Americans (Miller, Sendrowitz Roy, Brown, Thomas, & McDaniel, 2009).

There are several pathways through which beliefs of personal efficacy affect the career choice process, and the effects were found to be significant in many ways.

At first, “the higher the level of people’s perceived self-efficacy the wider the range of career options they seriously consider, the greater the people’s interest in career options, and the better they prepare themselves educationally for the occupational pursuits they choose, and the greater is the success” (Bandura, 1994, p.8). For example, Pajares (1997, p.45) with his study found that “undergraduates choose college majors and careers in areas in which they feel most competent and avoid those in which they believe themselves less competent or less able to compete”.

Besides, research (Bandura, 1997; Betz & Hackett, 1997; Lent et al., 1994) supported that “self-beliefs of efficacy govern aspirations, self-appraisal of occupational capabilities, level of motivation, development of occupational interests and resilience to daunting impediments” (Bandura et al., 2001, p.190). A few studies (Pihie & Bagheri, 2011a, 2011b) investigated entrepreneurial self-efficacy for technical school students, and the results showed, in both studies, that students perceived themselves as moderately high in entrepreneurial self-efficacy. Some other studies also revealed that mothers’ educational level might predict problem-solving skills (Temper & Fashbeck, 1982 in Scvaneveldt & Adams, 1983).

Career self-efficacy and career planning and explorations efficacy also predict the variety of the occupations taken into consideration (O' Brien, Martinez-Pons, & Kopala, 1999; Rotberg, Brown, & Ware, 1987), the confidence to deal with tasks related to career (Ahrens & O' Brien, 1996) and the level of interest (Bores-Rangel, Church, Szendre, & Reeves, 1990; Church, Tereza, Roserbrook, & Szendre, 1992).

Studies suggest that “self-efficacy differs across different developmental stages” (Lv et al., 2018, p.3). Each developmental stage brings new challenges for self-efficacy beliefs. For adolescents approaching adulthood, mastering of new skills is required to gain full responsibility for themselves in almost all aspects of their lives. The most prevalent skill is career decision making (Gati, et al., 2019; Argyropoulou & Kaliris, 2018). Exploring career choices and making career plans are vital parts of the formation of the identity process (Super, 1963).

McWhirter, Rasheed, and Crothers (2000) claimed the following:

“Career theorists highlight adolescence as the pivotal developmental period in the exploration and formation of potential career objectives. During the high school years, students make crucial career decisions (e.g., completing high school, seeking employment vs. the pursuit of further education) that will inevitably influence their career aspirations, plans, and goals” (p.20).

The above claims are essential to be considered in discussing the results since the sample of this research are adolescents. Acknowledging the characteristics and the challenges of the developmental stage of adolescence, one could possibly interpret adolescents' perceptions. This acknowledgment is also vital for forming adequate social support.

2.2.3 Career Self-efficacy beliefs and Gender Differences

Based on a sample of high school students, Otto (2000) claimed that both young men and women discuss with their parents their occupational career plans, but young women seem to discuss more. Specifically, both young men and women claim that their mothers are more aware of their career interests and abilities than their fathers. They prefer to talk more with their mothers about their career plans, like education and training needed for their occupation. The same research supported also that both young men and women claim, for their parents, that they hold high educational expectations for them with young women claiming the highest. They also share the same values with their parents of a college education.

Hackett and Betz (1981) were the first to investigate gender differences regarding career-related self-efficacy beliefs and revealed differences of women's self-efficacy beliefs regarding traditional and non-traditional female occupations. A number of studies among precollege students revealed gender differences in the career-related self-efficacy similar to the ones observed in college samples (Hackett & Betz, 1995; Lapan & Jingeleski, 1992; Shin, Lee, & Seo, 2019; Aurah, 2017; Chen & Hwang, 1992; Lauver & Jones, 1991; Byars-Winston & Rogers, 2019; Nissen, 2019; Fahle, Lee, & Loeb, 2019; Kalender, Marshman, Nokes-Malach, Schunn, & Singh, 2019). Research has also revealed that there are no gender differences but gender roles and gender-typing of career influence adolescents' career interest and choices (Fitzgerald & Crites, 1980; Fitzgerald, Fassinger, & Betz, 1995; Lapan, et al., 2000). Therefore, gender differences depend on the gender role individuals traditionally have.

Although men's and women's self-efficacy beliefs are equivalent in respect to gender-neutral tasks like verbal reasoning, men express higher self-efficacy beliefs than

women for gender-stereotypical tasks like mathematics. Researchers claim that gender differences exist regarding how genders perceive and interpret failure and success. It seems that women's self-efficacy beliefs are more easily influenced by failure than men (Hackett, Betz, O'Halloran, & Romac, 1990). College women believe that success is due to external factors like luck and failures to internal factors, such as their lack of ability. On the contrary, college men attribute success to internal factors, to their ability, and inability to external factors, such as difficult task (Hackett & Betz, 1995).

2.3 Parental support in career decision making

In this subsection, initially, the importance of the parental role in the children's career development is discussed. Besides, the four sources of self-efficacy information, mastery experience, vicarious experience, verbal persuasion and affective arousal are explained, since they are connected to the four parental ways that formed the parents' questionnaire. The discussion focuses on the best ways parents may employ to enhance career decision self-efficacy beliefs. Finally, parental support is also investigated employing cognitive and emotional factors that influence parents' attempt to provide support.

Parental involvement and parental support are the two concepts used to refer to parents' participation in the children's life. Parental involvement perceptions have changed during the years. In the beginning, researchers, social scientists, educators and parents themselves considered parental involvement as visiting or attending school frequently, participating in school activities, helping/checking children's homework and establishing household rules (Domina, 2005; Epstein, 2001; Henderson & Mapp, 2002). Jeynes' (2011a) meta-analysis research indicates that more important and influential aspects of parental involvement are parents' high expectations of their children, communication between parents

and children (Afifi & Olson, 2005; Davalos, Chavez, & Guardiola, 2005; Jeynes, 2005, 2007) and parental style (Casanova, Garcia-Linares, de la Torre & Carpio, 2005; Jeynes, 2011(a); Jeynes, 2011(b); Lancaster, Dodd, & Williamson, 2004). “Parental support is commonly defined as being emotionally present and consistently dependable for the child in times of need” (Ruholt et al., 2015, p. 2). Also, according to Ratelle, Larose, Guay, & Senécal, (2005), “parental support focuses on the feelings of the child and helping them by listening whereas parental involvement focuses on spending time with the child and taking interest in what is going on in their life” (p.3). In addition, some studies argue that mothers’ role is usually associated with providing emotional support to children (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004; Burleson & Kunkel, 2002).

2.3.1. Parental support in career development

Sarason, Sarason and Pierce (1990) stated that social support is very essential for people because it provides a “safety net” to “explore and experiment in the world. Individuals who perceive support feel that they have someone to turn to when problems arise” (Dennis, Phinney, & Chuateco, 2005, p.226).

Parents are one of the significant others, in the social context, who play a vital role in influencing children “on how academics should be pursued and accomplished throughout a lifetime” (Ruholt, et al, 2015, p. 1), and in supporting them which affects positively their career development (Bandura, 1999; Otto, 2000; Lent, et al., 1994, 2000; Turner & Lapan, 2002; Oomen, 2016). Astin (1984) characterizes parents as “value socializers” who shape the way children perceive the appropriateness of career-related decisions. Eccles (1994) describes parents as “expectancy socializers” to emphasize the parents’ significant influence on children’s self-perception of their academic and vocational competence. Young (1994)

emphasizes parents' role in encouraging their children to achieve vocational goals through their behavior, connected to career and goals achievements and the career-related experiences they offer to their children. Social support is essential for the development of career outcomes. Researchers (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003; Wall, Covell, & MacIntyre, 1999; McWhirter, Hackett, & Bandalos, 1998; Li, Hazler & Trusty, 2017; Hlad' o, Kvasková, Ježek, Hirschi, & Macek, 2019; Jiang, 2017; Chan, 2019; Franco, Hsiao, Gnilka, & Ashby, 2019; Li, Hazler, & Trusty, 2017) have revealed that the level of support from the social environment, parents, family, teachers, peers predicts career development in the sense of career aspirations, educational plans, self-efficacy, perceptions of opportunity.

Turner and Lapan (2002) also claimed that parents primarily provide their children with self-efficacy information. Based on this, the National Model for Comprehensive School Counselling Programs, described by the American School Counsellor Association (ASCA, 2000, revised 2006), suggests that the parents' collaboration and involvement in their children's career planning and development is very important. Indeed, parental support and encouragement facilitate adolescents' participation in career-related learning experiences which in turn helps to form self-efficacy, and chase and achieve academic, career and vocational outcomes (Turner & Lapan, 2002; Kenny et al., 2003; Taylor, Harris, & Taylor, 2004). Through their involvement, parents model to their children an attitude to situations that they can control their own learning and life (Grolnick & Slowiaczek, 1994).

The literature and research described different parameters with which parental support may influence children's functioning regarding career development. Research provides evidence that parents, who have a strong belief that they can influence their children's development, are more efficient in cultivating their children's competencies, in

contrast to the parents who have a weak belief that they can influence their children (Bandura et al.,1996; Teti &Gelfand, 1991; King & Elder, 1998; Gross, Fogg, & Tucker, 1995; Schneewind, 1995). Bandura et al. (2001) supported that “parents with high academic efficacy would favour high educational aspirations which, in turn, would foster scholastic aspirations and attainments in their children (p. 189). Schunk and Meece (2005) also specified that “parents help children build a sense of competence when they provide an environment that offers some challenges, encourages, sets high but realistic aspirations, contains positive role models, provides and supports mastery experiences, and teaches how to deal with difficulties” (p.84). The effects are reciprocal, so it depends on children’s character as well, for example, if the children are curious, they ask for new experiences, so parents respond to that. Besides, Bleeker, and Jacobs (2004) claimed that “parental ability perceptions not only have a strong impact on their children’s self-perceptions of ability but also predict their career choices and educational plans 12 years later” (In Schunk and Meece, 2005, p.86). In addition, research by Noack, Kracke, Gniewosz, and Dietric, (2010) revealed that “positive parenting, i.e., warm and supportive behaviour, in particular, genuinely contributed to the explanation of sons’ and daughters’ exploratory activities.” (p.17). Another important parameter that affects adolescents’ occupational preparation is the family socioeconomic parameter. “Financial and educational resources seem to particularly impact the occupational aspiration which adolescents develop in the approach to their transition from school to work.” (Noack et al., 2010, p.5). Contradicting the assumption, Schunk, and Meece (2006) supported that “socioeconomic status is a descriptive rather than an explanatory variable....not all children from poor families hold low self-efficacy” (p.84). This kind of disagreement among different studies and researchers may arise from group differences. For example, Noack et al. (2010) conducted their research among German students therefore,

ethnic differences might be responsible for this inconsistency. A few studies have revealed no significant ethnic differences (Britner & Pajares, 2001; Roeser, Midgley, & Urdan, 1996). Other studies (Pajares & Kranzler, 1995; Pajares & Johnson, 1996), however, showed significant ethnic differences.

Schunk and Meece (2005) also argued that parental support has been found to be positively related to adolescents' efficacy in career development. For example, if parents "provide an environment that offers challenges, sets high but realistic aspirations, contains positive role models, provides and supports mastery experiences and teaches how to deal with difficulties" (Schunk & Meece, 2005, p.84), then adolescents will build a high perceived self-efficacy. Through the different activities the parents choose to offer their children, they transfer their values and beliefs to them. The choice of activities may be influenced by variables such as parents' level of education, academic aspirations, gender and socioeconomic status. Research (Bradley & Crowyn, 2002) has shown that low socioeconomic status and parental education are related positively to difficulties in adolescents' development.

Several studies have also investigated the role of parenting styles on adolescents' academic orientations and achievement (Aunola, Stattin, & Nurmi, 2000; Steinberg, 2001; Coplan, Hastings, Lagacé-Séguin, & Moulton, 2002). The parenting styles differ with respect to two dimensions, demandingness and responsiveness (Baumrind, 1971, 1989, Maccoby & Martin, 1983). Four parental styles are generated from these two dimensions: a) authoritative parents who are both demanding and responsive, b) authoritarian parents who are demanding but not responsive, c) permissive parents who are responsive but not demanding, and d) neglectful parents who are neither responsive nor demanding. Research (Hokodan & Fincham, 1995, Aunola, Stattin, & Nurmi, 2000) has revealed that adolescents from

authoritative families seemed to apply the most adaptive, task-oriented strategies in achievement situations characterized by low levels of failure expectations. By contrast, adolescents from neglectful families “applied maladaptive strategies characterized by high levels of failure expectations, task-irrelevant behaviour and passivity, and the use of self-enhancing attributions” (Aunola et al., 2000, p.205).

For the purposes of this study, although parental support and parental involvement are rarely used in the same study, both will be included in the research. The research aimed to find out if parents’ support and involvement influence children’s career-related self-efficacy expectations by listening to their children, supporting them emotionally but also spending time with them doing career-related activities, taking interest in their life, for example, by visiting together the school counsellor. Therefore, the term parental support is used in this study to describe both, parental involvement and parental support because the research investigates aspects of both concepts in order to reflect the impact parents’ behaviour has on children’s career-related self-efficacy. This study also adopts Bandura’s sources of self-efficacy information in order to be able to understand and explain the way parents can support positively/enhance their children’s career-related self-efficacy.

2.3.2 Parental support and career decision self-efficacy

Bandura (1977) with SCT tried to explain how parents can effectively support their adolescents’ vocational development by analysing the four sources of self-efficacy, information: mastery experience, vicarious experience, verbal persuasion and affective arousal.

Initially, mastery experiences – performance accomplishments or purposive performance (Pajares, 1997) - are explained. Simply put, individuals create their self-efficacy

beliefs through their personal experiences by assessing and interpreting the effects of their actions. When individuals interpret outcomes as successful, they raise their self-efficacy beliefs in contrast to the ones interpreted as failures that lower them. Bandura considers mastery experience as the most influential and effective source of information related to creating strong efficacy beliefs. Successes create a strong faith and belief in the individual's efficacy, whereas failures diminish/weaken/threaten it. Several studies supported the claim that mastery experience has the most potent influence on self-efficacy beliefs of the other sources of information (Lent, Lopez & Bieschke, 1991; Lopez & Lent, 1992; Matsui, Matsui, & Ohnishi, 1990; Lent, 2005). The kind of experiences the individual has are very important. For example, if one is experiencing only easy successes, one expects quick results and gets easily disappointed by failure. Experiences that consist of difficult tasks offer the opportunity to the individual to overcome obstacles which require more perseverance effort and teach the individual that in order to succeed one's effort should be more sustained. Therefore, through difficulties individuals learn that success requires sustained effort (Bandura, 1994). Considering all the above, parental support in order to enhance children's self-beliefs should focus on offering opportunities for authentic mastery experiences and permitting freedom of movement for exploration. Bandura's (1997) notion of "mastery experience" is closely connected to the parental way of support, adopted for this study, named "self-enhancement". Self-enhancement is used, in the parents' questionnaire in this research, to describe the way parents enhance their children's active involvement in the decision-making process (e.g. "*Encourage me to make plans for the future*", "*Help me acknowledge the positives and negatives of my plans*"). However, this enhancement aims to the active involvement of the children so that the children themselves are active agents and make the plans, try new

activities, face the problems, consider the future. In this way the children acquire new experiences and learn from their own experiences.

Secondly, the vicarious experience could be described as the situation when humans create and enhance self-efficacy beliefs through the experience of significant others or social models, as Bandura (1994) named them; they have the opportunity to learn how to behave or perform without participating in the situation. When one observes similar others succeeding through continuous effort, this increases one's beliefs that he/she has the capability to succeed in comparable tasks. If the model observed is seen as abler or talented, the observer would not consider the performance relevant to him/herself. On the contrary, if one experience others failing despite great effort, this affects their own self-efficacy beliefs negatively. The amount of impact of vicarious experience on perceived self-efficacy is related to how similar to them humans perceive significant others/social models. If they perceive them similar to them the impact is greater. Schunk (1981, 1983, 1987) emphasizes that people are influenced more by the others' experiences when they lack experiences, themselves, or are not confident enough of their own abilities. This source of information is not considered to be as influential as mastery experience. Taking into consideration the age of the participants of the research, at their adolescence, it is possible their peers act as a more influential social model than their parents. This depends on the adolescents' perceived similarity to their parents. Therefore, the parents' role is to provide a social environment where children could trace people with similarities to their capabilities and could be positive models (Schunk & Meece, 2005). Vicarious experience has similarities with the factor of "parental active involvement", in the parents' questionnaire to describe ways of parental involvement which could be with a direct way (e.g. "*Offer to me career experiences*", "*Participate with me in structured exhibitions/workshops/lectures*") or with an indirect way

which derives from the parents' personal experiences (e.g. *Have specific career traditions*”, “*Encourage me to take career test*”). The fact that some of the items used to describe active parental involvement are formed, influenced and defined by parents' experiences this connects the specific factor with Bandura's notion of vicarious experience.

Thirdly, verbal persuasion is described as the source of information referring to the process of one being persuaded verbally that he/she can succeed in a given task/activity. Verbal persuasion involves verbal judgement by others. This process may generate more significant effort and sustainability when difficulties arise. On the other hand, “unrealistic boosts in efficacy are quickly disconfirmed by disappointing results of one's effort” (Bandura, 1994, p.3). Zeldin and Pajares (1997) claim that verbal persuasion can play a significant role in one's self-beliefs. If the persuasion is positive, it may encourage and empower one's self-beliefs, but if the persuasion is negative, it can decrease self-beliefs. Diminishing self-efficacy through negative appraisal is easier than strengthening it with positive empowerment (Bandura, 1986a). Bandura (1994) suggests that those who wish to build in others self-efficacy beliefs successfully need, not only to provide positive appraisals but to create situations for them which they can handle and avoid the ones where they may fail. This source of information is considered weaker than mastery and vicarious experiences (Pajares, 1997), but verbal persuasion could enhance mastery experience. Conclusively, parents' role regarding verbal persuasion would be to use more positive persuasion and diminish negative one. Parents should create for their children situations to be involved which they can handle. Verbal persuasion is part of the parental way of support used for the parents' questionnaire and refers to “reciprocal communication” (e.g. “*Tell me they are proud of me*”, “*Treat my mistakes as learning experiences*”, “*Really try to understand my feeling*”). This

way of support describes parents' effort to show authenticity, empathy and positive regard in their attempt to enhance children's career self-efficacy beliefs.

Finally, affective arousal refers to individuals' emotional and physical state: how people feel both in the sense of emotions like stress, fatigue but also somatically like aches and pains provide information about efficacy beliefs (Pajares, 1997, 2005). The relationship is reciprocal, as self-efficacy beliefs may also influence the emotional state (Pajares, 1997). Pajares (2005) explained that students might get a good sense of their self-efficacy by the feelings they experience when they think of action. Bandura (1994) claims that what is essential is the way emotional and physical states are perceived and interpreted and not how intensive they are. According to Bandura (1994), "people who have a high sense of efficacy are likely to view their state of affective arousal as an energizing facilitator of performance, whereas those who are beset by self-doubts regard their arousal as a debilitator" (p.3). Regarding parents' role for this source of information, it could be advisable for them to teach their children to interpret and perceive affective arousal as a facilitator to their attempt to deal with the situation they face. For the purpose of this study the term "emotional support" is being used to describe the parental ways used to support their children's emotionally and increase their resilience (e.g. "*Trust me*", "*Promise to support economically my future plans*"). The factor of "emotional support" is related to what Bandura (1994) describes as affective arousal since it contains items which describe parents' effort to support in difficult situations (e.g. "*Negotiate various solutions to a problem I face*").

2.3.3 Factors influencing parental support

The factors that influence parental support can be divided into cognitive and emotional factors: cognitive factors have to do with the perception of parents, firstly, on the

way they perceive parental support (Hoover-Dempsey, Walker, & Sandler, 2005; Hornby & Lafaele, 2011). Parents who perceive their role as being just to take children to school and the school as responsible to educate them, are not willing to be involved actively and support their children. Hoover-Dempsey and Sandler (1997) claim that this attitude varies among communities and cultures. Secondly, on the way parents perceive their ability to help their children. Parents, who have the belief that they are not able to help their children, probably avoid contact with the school because they are not confident enough that their involvement will have positive results (Hoover-Dempsey, and Sandler, 1997). Thirdly, on the way parents think how children learn and develop abilities (Hoover-Dempsey, and Sandler, 1997). Hornby and Lafaele (2011) claimed that:

“Parents who believe that the way they bring up their children will have considerable impact on their development are much more likely to be positive about parental involvement than parents who believe they can have little impact on their children’s development” (p.40).

Emotional factors refer to parents’ lack of confidence. For example, because parents may not be well-educated, they may have the “view that they have not developed sufficient academic competence to effectively help their children” (Hornby & Lafaele, 2011, p.40). The above factors which found to influence parental support would be very vital for the discussion of the results of this research in understanding parents’ perception of parental support.

2.3.4 Parental support during adolescence with regards to career development

According to Super (1980), adolescence is a period of exploration. Patton and Creed (2007) explain the exploration stage regarding vocational behaviour as the process of gathering information about oneself and the world of work.

Many researchers have dealt with the subject of parental support and its influence on career development covering various aspects of the issue. Some examples are explored below.

Research showed that adolescents seem to discuss more frequently, about career issues with their parents, compared to their teachers and school (Otto, 2000), and consider their parents as being more influential during the educational and career development period (Tynkkynen, Nurmi, & Salmela-Aro, 2010; Mortimer, Zimmer-Gembeck, Holmes, & Shanahan, 2002).

Most of the studies in educational research concentrated on the parent-adolescent relationship and the role of parenting styles, individuation, attachment, and family dysfunction, which were found to be related to adolescents' career development. Very few studies, primarily using qualitative methods with small samples (e.g., Young, Valach, Ball, Paseluikho, Wong, DeVries, et.al., 2001), have investigated the correlation between parents' influence and support and career development among adolescents. Especially some of these studies (Keller & Whiston, 2008) investigated the features of support by which parents influence adolescents' career decision self-efficacy and showed a positive correlation between them

Another study with Mexican American high school girls showed that the girls thought support from their fathers had a significant relation to their educational plans and career expectations (McWhirter et al., 1998). In 1999, Lapan, Hinkelman, Adams, and Turner's study among rural adolescents and their choice to follow occupations representing specific themes (Holland, Whitney, Cole, & Richards, 1969) showed that they perceive their parents' support as a significant predictor of their vocational interest, vocational self-efficacy and

occupational value. Another study among undergraduate college students found that parental encouragement had a considerable influence on students' efficacy, outcome expectations and learning experiences (Ferry, Fouad, & Smith, 2000).

All the above studies of adolescents' career development have led by and been modelled using the new theory of career development Social Cognitive Career Theory (SCCT; Lent, et al., 1994, 2000). After that, research continued to study the specific correlations guided primarily by the model of SCCT.

Turner and Lapan's (2002) research among middle school adolescents examined the contribution of proximal and distal support to the career interests and vocational self – efficacy. The results, “consistent with SCCT, indicate that career self-efficacy, career planning/exploration efficacy, and perceived parent support interactively predicted young adolescents' career interests for all Holland type careers” (Turner & Lapan, 2002, p. 52). The research has also noted that “for younger adolescents, parent support accounted for as much as approximately one third to almost one half of their children's career-task related confidence” (Turner & Lapan, 2002, p. 53).

Garcia, Restubog, Toledano, Tolentino, and Rafferty (2012) tested “differential predictions regarding the moderating role of student- and parent-rated support when considering the influence of students' learning goal orientation on career decision-making self-efficacy” (p.22). The study indicated that “high student ratings of parental support strengthened the association between learning goal orientation and career decision making self-efficacy” (ibid.).

Research has also showed that parental support positively predicts career decision-making self-efficacy (Gushue & Whitson, 2006; Restubog, Florentino, & Garcia, 2010;

Garcia, Restubog, Bordia, Bordia, & Roxas, 2015; Turner & Lapan, 2002; Hargrove, Creagh, & Burgess, 2002; Guan, et al., 2016; Keller & Whiston, 2008). Super, Savickas, Super, Brown and Brooks (1996) claim that a supportive environment is essential for adolescents as they may experience anxiety and indecision because of being at a developmental phase of self-exploration. According to Guan et al. (2016, p.116) “parental support impacts one's sense of autonomy and ability to exercise personal agency, volition, and freedom in career decision-making, which in turn is important for the development of career decision-making self-efficacy”. Turner and Lapan (2002) in their research found that “perceived parental support accounted for 29% to 43% of the total variance in vocational self-efficacy” (p.44).

Pomerantz, Moorman and Litwack (2007) and Wang and Sheikh-Khalil (2014) associated parental involvement with children’s emotional and social functioning by promoting children’s motivational development.

Besides, Kracke and Noack (2005) concluded from their research that the more adolescents felt supported by their parents, the more they participated and pursue activities to explore different careers. Adolescents reported that parents encouraged them to explore career options, career-related abilities and interests. Parents also helped them to make relevant choices, but some reported that their parents were deciding for them, controlling their choices and actions (Schultheiss et al., 2001).

2.4 Implications for school counsellors regarding their role in supporting adolescents

In the final subsection of the theoretical literature, implications for career counsellors regarding the way they can enhance adolescents’ career decision self-efficacy beliefs are discussed.

Parsons (1909), the father of vocational guidance, stated that “there is no part of life where the need for guidance is more emphatic than in the transition from school to work” (p.4). This need becomes bigger in an increasingly demanding, changing, challenging and competitive world of work of 21st century, when it is very important for school counsellors to support students for their future vocational roles in order to be satisfied and productive in their lives.

When applied psychologists (Hackett, 1993; Spokane, 1991) did not give a lot of attention to career counselling vocational psychologists have encouraged the development and evaluation of counselling interventions designed to increase career decision-making self-efficacy beliefs (Betz & Luzzo, 1996). Various studies have successfully tried “to determine the usefulness of self-efficacy theory in enhancing career development and broadening career choices” (Hackett & Betz, 1992, p.241) with different kinds of interventions.

Foss and Slaney (1986) exposed college women to a videotaped career intervention to diminish gender-oriented career planning and education. After two weeks, they managed to increase participants’ career decision making self-efficacy. In 1988, an intervention, by Fukuyama, Probert, Neimeyer, Nevill and Metzler, among undergraduates with a computerized career guidance program related to career decision making self-efficacy, indicated increase in career decision self-efficacy and decrease in indecision. Luzzo and Taylor (1994) applied an intervention through the counsellor’s feedback process among first-year college students after completing the World of Work Inventory. The counsellor, in this case, used verbal persuasion. The students, who were verbally persuaded by the counsellor that they have the necessary skills to participate in career decision-making activities, showed increase of their career decision self-efficacy compared to the ones that did not experience counsellor’s verbal persuasion.

The study by Luzzo, Funk and Strang (1996) applied an attributional retraining procedure intervention among college students which also revealed results for college students' career decision self-efficacy. The study by Sullivan and Mahalik (2000) sought to increase women's career self-efficacy by participating in a career group designed to increase their career-related self-efficacy. Betz and Schifano (2000) worked with college women with interventions based on self-efficacy theory and succeeded in increasing their confidence and interests in "Realistic" (Holland) activities.

Turner and Lapan (2005), through a computer-assisted career intervention and group exploration activities among middle-school participants, evaluated the effectiveness of an intervention designed to increase adolescents' interests in non-traditional careers, and their career-related self-efficacy. Results suggested adolescents' career-related self-efficacy and interests in non-traditional careers can be increased through their participation in computer-assisted career intervention and group exploration activities.

Besides, Turner and Lapan (2002) recommended that school counsellors use Social Cognitive Career Theory as the framework to plan counselling interventions. Interventions can be designed to, firstly, reduce gender-oriented choices and use more non-traditional careers, to increase career planning and exploration efficacy and, secondly, to help and train parents in the way they can increase their children's career self-efficacy. To achieve this, Turner and Lapan (2002) suggested that school counsellors can help parents in two ways, firstly, by giving them the opportunity to understand thoroughly the careers available for their children and expand their range of vocational choices and, secondly, to train parents regarding career-related communication skills. Researchers (Paa & McWhirter, 2000; Young & Friesen, 1992; Turner & Lapan, 2002) support that career-related communication skills refer to how parents listen to adolescents' career concerns, how to give feedback to their

children about their career choices and how to help adolescents to acquire skills and values related to career development.

Schunk and Meece (2005) claimed that children benefit from school counsellors and teachers who are supportive and caring. Therefore, any kind of intervention should aim at developing a balanced relationship characterized by warmth and support but at the same time convincing children that they are autonomous to make decisions and keep high expectations. Keller's and Whiston's (2008) research suggested that "adolescents might benefit from knowing counsellors are confident about their abilities, proud of their accomplishments, and interested in the events and ideas that are important to them" (p. 214).

Hughey and Hughey (1999) described activities to facilitate career development which they considered to be as a key responsibility of school counsellors to cultivate such as: learning about self-understanding, knowing one's interests, values, strengths, areas needing improvement, acquiring decision-making skills including career decision making, learning occupational options (Herr & Gray, 1996; Hughey & Hughey, 1999), and involving parents in career planning.

One of the main challenges faced by European countries, realizing the important role of parents in career decision process, is to involve parents. As Oomen (2016) highlights:

"involving parents in the educational setting in the career building and career decision-making of their child(ren) is valuable, considering the way in which parental influence on career development is highlighted in the literature" (p.39).

Therefore, career interventions should address parents as well. Oomen (2016) suggested three different approaches to involve parents: a) information-focused interventions, b) family learning and c) family counselling or family therapy.

In information – focused interventions, according to Oomen (2016), parents and teachers hold no specific role other than being the parent and a teacher or school counsellor accordingly. Parents are informed or notified through websites, telephone, e-mails or a parent-teacher session for a current issue regarding the educational or career planning of their child. In this kind of intervention, the school has the initiative and decides, and the intervention is one-off, and it is directed to all parents. The parents’ role could be active “by being invited to talk about their occupation for all students or to be an active observer and feedback provider” (Oomen, 2016, p.40). Involving parents using information-focused interventions is mainly used and very popular among career counselors in Cyprus and is also suggested by Cyprus Career Counselling Service of the Ministry of Education, Culture and Youth (MOECSY, 2018). For example, this kind of intervention may take the form of lectures to parents by the school counsellor to explain the way the Cyprus Educational System works, the educational choices offered and where the specific choices lead. Other kind of informative lectures are also organized by school counselors and offered to parents by specific agents regarding university choices and entry requirement in other countries. In addition, during the procedure for students to make subject or educational choices the school counsellor invites parents, usually by raising awareness of the counsellor-students meeting schedule, to participate with their child in the meeting. In some cases, during the informative lectures offered to students regarding various occupations, school counselors invite parents who are successful professionals to speak and share experiences to students about their profession.

Family learning interventions (Oomen, 2016) refer to the parental involvement when parents take the role of “teacher”, “coach” or “adviser” for their child. This kind of interventions aim to help parents to support their children for better educational and career

planning and have the form of small group sessions with guidance. These sessions are usually guided by specialized professionals, organized by schools, tailored to specific needs (e.g. parents with a child with special needs, minority parents) and both parents and children are expected to be actively involved. This is also a kind of intervention used in some cases by Cyprus school counselors but less than information-focused interventions and the sessions are usually undertaken by the school psychologist.

Family counselling or therapy is the kind of intervention that “is designed to address specific issues that affect the psychological health of the family” (Oomen, 2016, p.43). The intervention is taken by professionally trained career development expertise and has the form of family group session with the active involvement of both parents and their child. This is a rarely used intervention in Cypriot public schools. When it happens takes the form of a multidisciplinary meeting with the usual involvement of the school counsellor, psychologist, other teachers and, if needed, a social worker. It is mainly used with dysfunctional families aiming to promote more effective communication in the family, facilitation of the child’s career development and parental support to the child’s career development.

2.5 Summary

This chapter discussed the theoretical literature relevant to this study. Initially, the Theories of Career Choice and Development, which were developed through the years by career psychologists and sociologists, have been examined by means of their focus regarding career decision. A comparison between the two main components of self-efficacy and self-concept connected to theories and their relation/influence on career counselling is employed to help decide the theoretical framework of this study. Then, the rationale for choosing Social

Cognitive Career Theory (Lent, Brown, and Hackett, 1994) as the model that best fits the purpose of the study is explained.

Self-efficacy beliefs and parental support are also examined considering career decision making. Both themes were thoroughly presented regarding various factors like gender, developmental stage of adolescence and factors influencing self-efficacy beliefs and parental support.

Besides, the career decision self-efficacy and social support theoretical model of this study is presented in a figure explaining associations to be tested in the specific research.

At the end, implications and suggestions, derived from relevant literature and research for career counselors, are presented.

In the next chapter the methodology employed to serve the purpose of the study is explained and described.

3. METHODOLOGY

This chapter examines the methodology employed in order to fulfil the purpose of this study to measure adolescents' career decision self-efficacy beliefs in Cyprus and the influence of their parents' support and also to measure parental support and reveal the ways parents use to enhance adolescents' career decision self-efficacy beliefs. The study was seen from a pragmatic perspective to serve the aim of the study to interpret educational reality in Cyprus. Quantitative research was employed to discover cause and effect relationships between career decision self-efficacy and parental support and reveal the participants' perceptions of the issues.

According to Sultana (2017), the context, in the Mediterranean region, where Cyprus is located, matters and shapes people's choices. Therefore, it is important to highlight that Cyprus' sociocultural context has shaped many of the choices made for this study, for example the choice of the research questions and the choice of the research method.

Firstly, it was decided to involve parents in this research and ask them about their children's self-efficacy beliefs and their role in supporting their children for various reasons. Family for Cypriot society is the most important foundation with very tight bonds (Georgiou, 1995). Secondly, parents usually provide economic support to their children for their studies (Avgousti, 2018) and continue their involvement in their educational choices even after they enter Higher Education (Symeou, Theodorou, Lamprinou, Renzou, & Andreou, 2018). The social context of Cyprus also plays an important role in deciding to avoid interviews because of the very small community size of the island, where ethical issues like anonymity and confidentiality would be questioned.

The research questions were formed taking into consideration the historic and economic status of the island. Self-efficacy beliefs and the adolescents' readiness to make career decisions are useful to be studied taking into consideration that their parents' generation has suffered the Turkish invasion with several economical, emotional and sociological effects. In addition, adolescents have experienced the effects of the economic crisis in Cyprus in 2013 (Avgousti, 2018) which made this study very important to look into possible effects on their self-efficacy beliefs for educational and professional choices.

Initially, two questionnaires were employed. The first the Career Decision Self-Efficacy Scale Short (CDSES-SF) by Betz et al. (1996), was taken from the literature, and measures adolescents' CDSE. The second was created for this study, in order to measure parental support. After attaining formal permission to use the CDSES-SF questionnaire, translating it into Greek and developing the second questionnaire, a pilot study was conducted with a limited sample to test if the questionnaires employed generated data relevant to the research questions in Cyprus.

After the pilot study, and taking into considerations all the limitations observed during the pilot study, the final sample was chosen in order to have a representative sample from the schools situated and controlled by The Republic of Cyprus, both genders and both types of public school: Lyceum and Technical schools. Before informing schools and parents, formal consent was attained by the Ministry of Education, Culture and Youth in order to conduct the research in public schools on the island.

The research was conducted by the researcher, taking into consideration data access, and ethics and the data collected was recorded firstly to excel files and then transferred to the SPSS statistical package-2020. Validation analysis took place in order to assess the survey

questions for their validity for both questionnaires for Cypriot high school-age students and their parents. For this purpose, the Confirmatory and Exploratory Factor Analysis was employed to have measurable results concerning the internal consistency of questions and reveal the variables that load on each factor.

The models employed to analyse the results to best meet the purpose of the study were descriptive statistics to gain an overall picture that summarizes the data, independent-samples t-tests to compare the independent variables which consisted of two groups (e.g. gender, type of school), one-way ANOVA to compare more than two sets of scores (e.g. parents' educational level), multiple regression to find out which variable can be the stronger one to predict CDSE for both the parents' and students' sample, and dependent sample t-test, to compare the mean scores between parents and their children (matching) for career decision self-efficacy beliefs and parental support.

The chapter ends with the limitations and the conclusion of the methodology followed for this study.

3.1 Quantitative research

3.1.1 Purpose of Methodology

The research aims to assist in understanding how Cypriot students' self-efficacy beliefs are learned, formed and modified regarding the parents' role in supporting them and to provide insights which may be useful for school counsellors. The aim of the study classifies the specific research in an educational research context which "is not so much about education as it is a research for education" (Biesta & Burbules, 2003, p.1). Educators, school counsellors, in this case, could use the different interpretations of educational reality in order

to understand and make sense of their students' career decision making. It is educational research which was designed from a pragmatist perspective.

Pragmatism can be defined as a school of thought or philosophical movement, which initially emerged from the natural scientist and philosopher Charles Sanders Peirce (1839-1914), and the psychologist William James (1842-1910) and was transformed by the philosopher, educationalist and psychologist John Dewey (1859 - 1952) (Biesta, and Burbules, 2003). Pragmatists conceived knowledge “as an instrument that guides action and facilitates adaptation to reality. For pragmatists, knowledge is theory- and value-laden and capable of shaping human values” (Hartas, 2010, p.41). Pragmatism serves, in fact, the aim of this research in the sense, firstly, that it is a research with practical orientation relevant to the researcher's work aiming at providing different ways of “seeing” or interpreting educational reality by school counsellors. Secondly, the findings of this research could be interpreted as not the absolute truth of the school reality in Cyprus but as a knowledge interpreted from the researcher's view relative to the time, place, context, people involved, and which can be verifiable and changeable.

For various specific reasons, quantitative methods, rather than qualitative or a combination of both, have been chosen for this study.

3.1.2 Why quantitative method

With quantitative research it was possible to design the research in order to discover cause – and – effect relationships between the participants by matching students' and parents' answers. Quantitative research also served the purpose of the study in terms of being hypothesis-driven with an emphasis on control and manipulation of variables.

The questionnaires for this research were chosen (Part 1 a) and created (Part 1b) in order to answer the research questions. The research questions guided the methodology as the goal of the study was to investigate the participants' perceptions on the issue and not why they have these perceptions when qualitative method would be more suitable. The research also aimed to record, from a representative sample of the High School students studying in the Cyprus, students' and their parents' perception on the subject. Therefore, a large sample was needed which was not possible to be achieved with a qualitative method, which is usually suitable for small scale studies. The quantitative method also ensured anonymity and confidentiality in contrast to the qualitative method, for example interviews, when anonymity is not ensured for 100%.

The use of interviews in this kind of sample students and parents and the specific research questions concerning their relationship were not considered to be suitable for the purpose of this research. The participants' answers would not be sincere, and they would answer what they were prepared to reveal about the issue (Alshenqeeti, 2014) or "what they think the interviewer wants; by what they believe he/she would approve or disapprove of" (Hammersley & Gomm, 2008, p.100).

Another problem that may arise by using qualitative method is the researcher's subjective interpretation of data collected (Ramos, 1989), especially in cases where the researcher has a relationship with the participants.

Dilemmas about what information to include may also arise when participants disclose sensitive information about their relationship that the other did not (Mauthner, 2000).

All these ethical dilemmas get more complicated when the qualitative method is applied within small communities. It is essential to highlight here that Cyprus is less than half the size of Wales and has a population of 1.2 million. Damianakis, and Woodford (2012, p.708) used the phrase “small connected communities” McGrath (2006, p.3) used the term “small-sized communities” whereas Quigley (2006), p.1) discussed “small and close-knit Native communities” and Ellis (2007) (p.4) referred to “geographically bounded and tightly knit communities”. Whichever phrase is adopted the case of this research in a very small island like Cyprus fits every dimension of small community in the sense of size, of relationships existing among community members, of relationship between the researcher and the participants, of tight bonds among the community members, and of shared geography as participants are members of the same school and members of the same family (parents and students) (CYSTAT, 2018(a)). Conducting qualitative research among small communities in any sense (within a small island as Cyprus) where relationships exist, and people know one another and or are related to each other in many ways (for example through one’s work, an acquaintance, a relative, a friend, neighbourhood), ethical issues are faced in keeping confidentiality (Damianakis & Woodford, 2012). Institutional Review Board (IRB) committees and Ethical codes give guidelines to qualitative researchers to conduct research with “strangers with whom we have no prior relationships and plan no future interaction” (Ellis, 2007, p.5). For this study, unfortunately, this cannot be followed as the researcher may have been related to the participants from various situations (being a counsellor in their school, through another kind of relationship) or may be related to them in the future.

3.1.3 Sampling procedures

The choice of the schools was made in terms of ensuring representation of adolescents from a) all four provinces in the non-occupied part of the island, b) rural and suburban areas and c) technical and high schools.

The target group of the study was a sample of adolescents in their third grade (final year at school, 17-18 years old) and a sample of their parents. The specific student population was chosen because a) they had already chosen their primary subjects when they started the Lyceum/Technical School, which may suggest a specific career direction and b) adolescents in their final year of secondary schooling who had most probably decided what they would do after school graduation. The final sample of the main research was 454 students (386 from Lyceum and 68 from Technical school) and 138 Parents. Only 115 pairs (adolescent and parent) could be matched.

Before answering the questionnaire, each student randomly chose their code (number of participations in the survey, which was given in a written form to each participant). The code was formed by a number starting from number 1 to 1400. Students were asked to write their code on their questionnaire. In this way, it was not possible for the researcher, or anybody else, to identify the participants. Students were given a printed questionnaire for their parents and were asked to write the code they had chosen at the bottom of the first page so that the pupil's and parent's questionnaire could be identified. The students were asked to give the questionnaire to their parents to complete it and return it in three days to the facilitator of the school. The time needed to complete the questionnaire in printed or electronic form was between twenty and thirty minutes.

Part 1 (b) of the questionnaire was available in an electronic and non-electronic/printed form. Students who chose to answer the questionnaire electronically did so at the link www.goo.gl/Xs54cL. If the parents choose to respond electronically to that part of the questionnaire, then the student would deliver the written paper with his or her code, which also includes the electronic link corresponding to the parents' questionnaire www.goo.gl/zmJyzJ.

Each school also arranged to send a telephone message (SMS) (where the electronic link is also provided) to the parents to inform them of the students participating in the survey with a reminder for them for the electronic or printed questionnaire completion. This text was written by the researcher and was sent to the teacher facilitating the research at each school.

The researcher collected all the non-electronic/printed questionnaires completed by students on the day of the research. All non-electronic/printed questionnaires by parents were collected by the facilitator at school and delivered to the researcher.

3.1.3.a Letters to Schools

The Cyprus Centre for Educational Research and Evaluation of the Pedagogical Institute is the formal body under the Cyprus Ministry of Education, Culture, Sport and Youth which is responsible for providing formal consent to conduct any research in schools in Cyprus. This procedure enabled the researcher to negotiate with the school leaders the procedure for conducting the research at their schools. At the same time, the researcher applied for and was granted ethical approval from the University of Warwick.

A meeting with the school leader of each school chosen to participate in the research, was arranged in order to explain the purpose of the research, and the procedure to be

followed. A copy of the formal permission to conduct the research was given to the principal of the school. The information letter (Appendix 2), sealed in an envelope, was also given to each school, addressed to both the adolescents and their parents, informing them of the purpose of the research and asking them to state back to the researcher via e-mail or phone if they do not consent to participate in the research. In the information letter, the link to the online questionnaire was provided. Written instructions about what to do before, during and after the research were also given to the school. The school leader assigned to a teacher at the school the role of facilitator and they liaised with the researcher. The research was conducted by the researcher herself by visiting each school on a specified day and time.

3.1.3.b Parental Consent

Obtaining consent from the adolescents' parents was a significant challenge as most of the students were over 17 years old and taking consent from their parents may be regarded as insulting or not acceptable from adolescents but at the same time respect to the parental role and responsibility ought to be shown (Lindsay, 2010). Consent was secured by using the same information letter addressed to both parents and students, therefore considering them equal, and giving them the right to express their disagreement to participate by informing the researcher in writing (via e-mail) or by phone.

3.2 Data collection methods and instruments

The selection of the data needed for answering the research questions has been achieved by using two questionnaires one for the students and one for the parents. The two questionnaires were identical with different instructions to the participants and consisted of part 1(a) -measuring students' self-efficacy beliefs for career decision making - and part 1(b) – measuring parental support. Part 1(a), in the students' questionnaire, was self-referent for

students to express their perceived self-efficacy beliefs while in the parents' questionnaire, parents were asked to express their opinion on their child's self-efficacy beliefs. Part (b) concerned parental support. Students were asked to express the kind of support they receive from their parents and parents were asked to describe the kind of support they offer to their children. Part 2 in both students' and parents' questionnaires served to select demographical data. Table 1 below shows how the two parts of the questionnaires were used to select data mapping the research questions:

| | RESEARCH QUESTIONS | INSTRUMENTS |
|---|---|--|
| 1 | Which of the five variables identified by Betz, Klein and Taylor (1996) (accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem-solving) are the most influential in shaping the career decision self-efficacy beliefs of adolescents in Cyprus? | CDESES-SF – Self-efficacy beliefs Questionnaire Part 1(a) |
| 2 | Which ways (Self-Enhancement, Reciprocal Communication, , Parental active involvement and Emotional Support) do parents use to enhance career decision self-efficacy beliefs for adolescents in Cyprus? | Parental support Questionnaire Part 1(b) |
| 3 | How do the independent variables of parents' educational level, adolescents' gender and the type of school they attend affect adolescents' career decision self-efficacy beliefs in Cyprus? | Demographical Information Questionnaire Part 2 |
| 4 | Do adolescents' and parents' perceptions regarding career decision self-efficacy beliefs differ? | Comparison between students' and parents' answers Part 1(a) of the Questionnaire |
| | Do adolescents' and parents' perceptions regarding parental support differ? | Comparison between students' and parents' answers Part 1(b) of the Questionnaire |

3.2.1 Students' Questionnaire

3.2.1.a Students' Questionnaire Part 1(a)

The questionnaire (Appendix 3) consisted of two parts. Part 1(a) includes a translation into Greek of the Career Decision Self-Efficacy Scale-Short (CDSE-SF) developed by Betz, Klein and Taylor (1996). Adolescents are asked to indicate their degree of confidence in their ability to accomplish each task or activity and parents to indicate the degree they believe their child could accomplish each task or activity. The instrument is a 25-item self-report questionnaire with a five-point Likert-scale response format that ranges from “No confidence at all” (1) to “Complete Confidence” (5).

The basis for the scale development and the five career choice competencies was the career maturity theory by Crites (1978). The five subscales of the CDSE-SF are 1) Accurate self-appraisal, 2) Gathering occupational information; 3) Goal selection; 4) Making plans, and 5) Problem-solving. Each subscale consists of five items and scoring is cumulative. The scale yields six scores – subscale scores for the five components of career decision self-efficacy and a total score. “Response values for the five items for each scale are summed and then divided by 5. Total scores for the full scale are calculated by summing the response values for the 25 items and then dividing by 25” (Betz, and Taylor, 2012, p.6). Validity studies, in general, suggest that “the five subscale scores can be used for the design of targeted interventions, that is, designing components to “teach” each of the five career choice competences” (Betz & Taylor, 2012, p. 9).

The CDSE-SF, reported to be highly reliable (Multon, et al., 1991; Buyukgoze-Kavas, 2014; Presti, Pace, Mondo, Nota, Casarubia, Ferrari, & Betz, 2013; Miller, Sendrowitz Roy, Brown, Thomas, & McDaniel, 2009), was chosen to serve the purpose of

this study. “The internal consistency reliability of the short form ranged from .73 (Self-Appraisal) to .83 (Goal - Selection) for the 5-item subscales and .94 for the 25-item total score (Betz, Klein, & Taylor, 1996). Reliabilities ranged from .69 (Problem-solving) to .83 (Goal Selection) for the subscales and .93 for the total score (Betz, Klein and Taylor, 1996)” (Betz, and Taylor, 2012, p.7). As far as the analysis is concerned, the creators of the questionnaire suggest that Confirmatory Factor Analysis (CFA) is the more appropriate analytic method (Betz, Klein, & Taylor, 1996).

Like the present research, a few studies investigated career decision-making self-efficacy using and testing the five-factor model of the 25-item CDESES-SF (Betz et al., 1996). The following are discussed the methodology of: Buyukgoze-Kavas (2014), Presti, Pace, Mondo, Nota, Casarubia, Ferrari & Betz (2013), Miller, Sendrowitz Roy, Brown, Thomas & McDaniel (2010), Hampton, N.Z (2005) and Gaudron (2011). The first four studies confirmed that the Five-factor structure fit their respective populations best; Hampton N.Z (2005) proposed a Three-factor model and Gaudron (2011) a Four-factor model.

Buyukgoze-Kavas (2014) examined the reliability and validity of the specific psychometric test for Turkish university students using Confirmatory Factor Analysis. The findings in the study showed a relatively high correlation between career decision-making self-efficacy and general self-efficacy. In order to determine the factor structure of the test, Buyukgoze-Kavas (2014) adopted Gaudron’s (2011) 18-item scale. The factor structure of CDESES-SF was also evaluated in a sample of Italian high school adolescents (Presti, Pace, Mondo, Nota, Casarubia, Ferrari, & Betz, 2013). Confirmatory Factor analysis was also used to test whether one-factor structure fit better than the five-factor structure. The results showed that five-factor structure fit best for that population. Miller, Sendrowitz Roy, Brown, Thomas and McDaniel (2009) tested five different models of the CDESES-SF using Confirmatory

Factor analysis across Asian and European American samples. They used the One-Factor Alternative Model, Hampton, N.Z (2005)'s Three-Factor Model, Greed, Patton and Watson's (2002a) Three-Factor Australian Model and Greed, Patton and Watson's (2002b) Three-Factor South African Model. They concluded that the five-factor measurement model was the most appropriate model for their population. Hampton, N.Z(2005) also examined the factor structure of the CDSES-SF among Chinese College students in order to understand students' career decision-making behaviour. In Hampton's research (2005), the Confirmatory Factor Analysis for Chinese populations showed the validity and proposed a Three-factor model. Gaudron (2011) examined the reliability and the factor structure of the CDSES-SF among French university students and proposed a Four-factor model with 18-item scale. An 18-item scale load only on Goal Selection, Problem-solving, Information Gathering and Goal Pursuit Management.

After studying most of the research using and testing the specific scale proposed by Betz et al. (1996) for a variety of populations, I came to believe that, across different cultures, the items of the CDSES-SF do not measure the same construct. As a result, the factor structure varies. The validation analysis of this study, through Confirmatory Factor Analysis, adopted Gaudron's (2011) and Buyukgoze-Kavas' (2014) four-factor model with 18-item scale as the best model that fits among Cypriot students and parents. More details on the analysis and the fit indices can be found later in the Methodology chapter in subsection 3.4.3 (Description of Validation Analysis).

3.2.1.b Students' Questionnaire Part 1(b)

Part 1(b) consists of a 50-item questionnaire which the researcher created. It asks adolescents to indicate the ways their parents support them to enhance their career decision

self-efficacy beliefs and parents to give their perception of the parental ways employed to support their children. The instrument is a 50-item self-report questionnaire with a five-point Likert-scale response format that ranges from “No at all” (1) to “Very much” (5). 1) Self-enhancement 2) Reciprocal communication 3) Parental active involvement 4) Emotional support, and 5) Problem-solving. Each subscale consists of ten items which are influenced by Bandura’s (1994) four sources of information for self-efficacy expectations beliefs. Scoring is cumulative. The scale yields six scores – subscale scores for the ten components of career decision self-efficacy and a total score. Validation could not be achieved during the pilot study because of the small sample. Therefore, validity for both questionnaires was attempted within the main research. Each item was the result of a thorough study of Bandura’s (1977, 1986, 1997) theory of self-efficacy expectations to vocational choice combined with the researcher’s long school experience.

Part 2 includes demographical information about the adolescents and their parents, covering items such as gender, subjects chosen at school, parental occupation, parental level of education. The demographical information will be useful in the investigation of correlations between students’ self-efficacy with variables like gender, type of school and parents’ educational level.

3.2.2 Parents’ Questionnaire

The questionnaire to parents (Appendix 4) mirrors the students' questionnaire in terms of structure and content. Therefore, in Part 1(a) of the questionnaire to parents, the same items were kept, and only the instructions changed to address the parents and to ask them to answer all items by indicating the degree they believe their child could accomplish each task or activity. In Part 1(b) the parents were asked to state for each item the degree to which they

use the parental way of support to provide support to their child. It is important to notice here that it is the first time that the CDSES-SF by Betz et al. (1996) is being used to explore parents' opinion of their child's ability to make decisions. In order to achieve to have both parents' and students' perspective on the two issues, students' self-efficacy beliefs and parents' support this research measures "perceived self-efficacy" in terms not only from the individual's themselves perspective but from the others' perspective that of the children's parents. To my knowledge, this approach is an original contribution since CDSES-SF has not been used in the same way before in research. As far as the parents' support questionnaire, developed by the researcher, this was created to serve this purpose of gathering the perceptions of both groups of participants therefore the specific questionnaire aims to measure the "perceived parental support" as perceived by parents and adolescents.

3.2.3 Data access and ethics

Intrusiveness regarding the school, the students themselves (during school time) and their parents has been one of the first issues that preoccupied the attempt to conduct the study. Informed consent as per the BERA (2011) Ethical Guidelines was obtained by providing a detailed letter which explained the purpose of the study. The letter was distributed, in advance, to the school head, the teachers involved, the school counsellor, the students and their parents. The information letter, apart from clarifying the purpose of the research, assured participants to safeguard their anonymity and their right to withdraw their participation at any time during the procedure, since participation is voluntary (Lindsay, 2010). Besides, the questionnaire was given to the adolescents at a time of the school's choosing to minimize disruption. As far as the parents were concerned, they answered the online questionnaire at their own chosen time and place.

The choice of words used in both the information letter and the questionnaires was carefully selected so that they did not offend or criticize but instead showed respect for the views of everybody regardless of religion, culture, country of origin, or gender. The questionnaires bore no identifying marks that might reveal participants' identities. All questionnaires are kept by the researcher in a safe place and data is kept on a password-protected personal computer where no one else can access.

The questionnaire focused on the views and decision-making of young people and their parents in their final year of secondary schooling. The researcher explained to the participants that the purpose of the research is to find ways to empower adolescents and their parents regarding decision making processes.

No ethical dilemmas arose during the whole procedure. The researcher stressed the fact that the confidentiality and anonymity of the participants would be kept throughout the whole procedure. It is important to stress the fact that all adolescents and parents agreed to participate in the research.

3.3 Pilot Study

3.3.1 Methodology

The pilot study collected quantitative data via questionnaires addressed to a small sample of both adolescents and their parents. The priority of the pilot study was to see if it generated data relevant to the research questions, if the chosen population understood the wording, and if parents could answer the electronic version. Also, the pilot study aimed to discover: how much time was needed to answer the questionnaire; how the school might handle questionnaire administration; and whether anonymity could be ensured throughout the whole procedure. It also offered the researcher the opportunity to practice the use of the

SPSS-statistical analysis package acknowledging that the results should not be generalized and the questionnaires could not be validated because of the small sample for both parents and adolescents.

Sample

In the pilot study, for practical reasons and due to time constraints, the population was chosen using non-probabilistic sampling. One of the limitations of this technique is that the sample is not representative of the population of adolescents in Cyprus; therefore, no generalisations can be made (Hartas, 2010). Convenience sampling was employed based on researcher's acquaintance with the head, the school counsellor and a few of the schoolteachers in the pilot study school. The researcher acknowledged that the characteristics and traits of the pilot group were not representative of the total population (Hartas, 2010). For example, there were nearly three times as many females as male participants.

All 40 adolescents who were asked to participate responded. However, only 10 out of 40 parents responded to the online version of the questionnaire, perhaps due to the voluntary nature of their participation, or the lack of familiarity with the online tool. Studies (Buchanan, and Bryman 2009; Lefever, Dal, & Matthiasdottir, 2007) on ethical and methodological concerns of online survey tools claim that this kind of researching challenges the principles of risk, privacy, anonymity, confidentiality but at the same time recognises the advantage of gaining access to large and geographically distributed populations and achieve quick returns. Considering the above concerns of having an online questionnaire, the population of this research was given the choice of either the online or the paper traditional way. It was solely their own choice which version to use.

As far as disclosure (BERA, 2011) is concerned, the researcher gave participants the right to have access to a summary of the results for the pilot study if they wished by ticking the relevant box in the questionnaire.

3.3.2 Results

3.3.2.a Adolescents' Questionnaires

Demographical information

The sample of the pilot study consisted of 40 students attending the last grade of Lyceum. Eleven (11) of them were males and 29 females. The school subject they chose at school was: science 17, Greek language 9 and mixed subjects 14. The grades they had for the first semester at school was: 22 of the participants had 18 to 20 out of 20, and 17 of them had 15 to 17 out of 20, the one of them did not say. Regarding their mother's education, 5 of the participants stated that their mothers had completed Primary Education, 16 of them Lyceum or Technical school, 16 Higher education and 3 of the participants' mothers had a Master's degree or a PhD. As far as their fathers' educational level, 9 of the participants stated that their fathers have completed only Primary Education, 10 of them Lyceum or Technical school, 16 a Higher Education degree, and 5 of them hold a Master's degree or a PhD.

In part 1(a) participants were asked to indicate the degree of confidence in their ability to accomplish each task or activity. The activities or tasks are the parameters of the five subscales. In part 1(b) they were asked to state the degree to which they feel their parents support them. The data gathered indicated the following values for the five parameters shown in the table below:

Table 2: Degree of confidence and parents' support

| SELF-EFFICACY SUBSCALES | DEGREE OF CONFIDENCE | DEGREE OF PARENTS' SUPPORT |
|------------------------------------|-----------------------------|---------------------------------------|
| Self-Appraisal | 0,67 | 0,88 |
| Occupational Information | 0,71 | 0,69 |
| Goal Selection | 0,65 | 0,75 |
| Planning | 0,69 | 0,80 |
| Problem-solving | 0,65 | 0,54 |
| TOTAL VALUE | 0,67 | 0,73 |

After Pearson Correlation analysis, it seems that there is a significant correlation ($p=0,031$) between student's self-appraisal and parents' support regarding the same parameter. There is also statistically significant correlation ($p=0,008$) between students' confidence in selecting their goals and their parents' support in doing so, which shows that parents play an essential role in increasing their child's confidence in selecting their goals. As far as planning is concerned, a statistically significant correlation ($p=0,011$) exists between students' planning and parents' support on this parameter which means that students' confidence in planning their future is increased if their parents support them on this. Although the sample is too small, Pearson correlation analysis was attempted to practise both the procedure and the way to analyse the results.

3.3.2.b Parents' Questionnaires

The participants of this study were 10 parents (3 fathers, 6 mothers and 1 did not say) of the adolescents involved in the research. The information letter was sent to all their parents in order to inform them and ask them to answer the online questionnaire through Survey

Monkey. Only 10 out of 40 answered it. Regarding level of education, 3 of them have finished secondary or high school, 2 college and 4 have a university degree and 1 did not say.

Because of the limited participation of parents, only descriptive statistics of the total scale of parents' support and the values for each of the five subscales can be given.

Participants in part 1(a) were asked to indicate the degree of confidence their child had in their ability to accomplish each task or activity. The activities or tasks are the parameters of the five subscales. In part 1(b) parents stated the way they use to enhance their children's career decision self-efficacy beliefs. The statements are associated with each subscale. The data gathered indicated the following weighted average for the five parameters, as shown in table 3.

Table3: Degree of child confidence and ways of parental support

| SELF-EFFICACY SUBSCALES | DEGREE OF THEIR CHILD CONFIDENCE | DEGREE OF IMPORTANCE OF PARENTS' SUPPORT |
|--------------------------------|---|---|
| Self-Appraisal | 3,94 | 4,58 |
| Occupational Information | 3,78 | 4,02 |
| Goal Selection | 4,00 | 4,26 |
| Planning | 3,68 | 4,28 |
| Problem-solving | 3,86 | 4,41 |
| AVERAGE | 3,85 OUT OF 5 | 4,31 OUT OF 5 |

The results showed that the parents who answered the questionnaire claim that their child has to a very high degree (3, 85 average out of 5) the confidence to accomplish the tasks described for all subscales and feel that it is very important to support their child (4, 31 out of 5) on all items of the five subscales. This is in accordance with the adolescents' results (see table 2) as they also themselves feel that they have high self-confidence in their ability

to accomplish the activities in all subscales; and that their parents' support plays to a high degree an important role to their self-confidence in doing that.

3.3.3 Discussion

Despite some limitations, the pilot study confirmed that: a) the specific questionnaires could be answered by the population without problems or misunderstandings regarding the wording used in the items, b) the data generated were relevant to the research questions, c) they could be answered online by parents on a percentage about 25%. The time needed for students to answer the questionnaire is about 20 to 30 minutes, but the whole procedure (e.g. explaining to the students the purpose and the ethical issues, administrating and collecting) could take not more than 45 minutes (the length of a high school lesson). The school has showed that it is possible to handle the procedure and preserve anonymity, but the procedure took more time than expected. All the students who were asked to participate in the research agreed. The pilot study was beneficial in terms of practising the statistical analysis and the interpretation of the results.

On the other hand, the pilot study identified some weaknesses. Firstly, the use of a small and convenience sample hindered the researcher from validating in order to discover any kind of difficulties (e.g. wording) in answering the specific questionnaire. Secondly, the online questionnaire for parents hindered the matching of parents and adolescents' questionnaire. Thirdly, the percentage of parents who participated in research was deficient. Finally, the time-consuming procedure the school followed (e.g. sending hard copies of the information letter to parents and waiting for their consent) delayed the whole procedure of conducting the research.

Because of the low number of participants, further analysis of the results (e.g. ANOVA or Factor Analysis, regression analysis) was not possible and did not give any representative picture of the situation. Because of this the presentation of results in relation to relevant theories was not possible. Validation is suggested for the main research.

3.3.4 Limitations of the Pilot Study

Findings from the pilot study should be examined in the context of several limitations. Firstly, the number of participants in the pilot study was minimal (40 adolescents and 10 parents) and the use of convenience sampling prohibits any generalisation or any chance of validating the questionnaires. Thus, no suggestions could be made regarding interventions and findings cannot be used to understand and predict behaviour on self-efficacy expectations. Because of these limitations, some amendments were suggested.

For the main research, the target group was a representative sample of the Cyprus adolescents' population (up to 500 from Lyceum and Technical School). The sample size was set to be close to 500 using Boyd's required sample size table (Foody, Mathur, Sanchez-Hernandez, & Boyd, 2006) for a population of 7000, a margin of error of 3,5 and the degree of confidence of 95%. All parents were asked to answer the questionnaire as well. To ensure that the above sample could be achieved, a bigger sample of about 1000 adolescents was targeted by giving the questionnaires to more schools.

Validation of the questionnaire created by the researcher (Part 1(b)) was needed in order to ensure that the items are conceptually coherent. Validation was attempted during the main research of analysis with Exploratory Factor Analysis (EFA) with the use of an appropriate size sample more than 100 (Hartas, 2010) of adolescents and parents.

Besides, the statistical analysis for the research should also use multiple linear regression analysis to be able to examine the “simultaneous influence of a wide range of predictor variables” (Strand, 2010, p.291) on career-related self-efficacy expectations. This technique would be beneficial for the research as it would reveal any possible relationships between the various variables which should be considered for building self-efficacy expectations and which of these variables can predict self-efficacy expectations. Multiple regression analysis would be applied to answer all research questions examining the influence of the various independent variables (e.g. self-appraisal, goal selection, gender) on the career-related self-efficacy expectations of adolescents in Cyprus.

In order to have a complete picture of the students’ career decision self-efficacy expectations, it would be essential to match a parent's questionnaire with their child's questionnaire. The matching could be achieved by giving the same unique code to each adolescent and parent pairing. Of course, there would be some adolescents whose parents do not complete a questionnaire.

3.4 Validating the questionnaires

3.4.1 Purpose

Validation analysis took place in order to assess the survey questions for their validity for both questionnaires for Cypriot high school-age students and their parents. The validation analysis was in process from the very beginning of this study, following specific steps proposed by bibliography for counselling psychology research (DeVellis, 2003; Worthington, and Whittaker, 2006). The validation ended with the Confirmatory and Exploratory Factor Analysis in order to have measurable results concerning the internal consistency of questions and reveal the variables that load on the same factor. Validating the questionnaires which were used for this research was considered to be necessary for the following reasons. Firstly, the questionnaire taken from literature was translated into Greek from English and it was the first time it was used to measure others' opinion on an individual's self-efficacy beliefs and not individual's perceived self-efficacy beliefs. For the purpose of this study the questionnaire was given to parents to state their perception on their children's self-efficacy beliefs. Secondly, both questionnaires, the one taken from literature and the one the researcher created, were used for the first time among Cypriots. Cyprus historical and cultural tradition is very rich as it has an adventurous history which indirectly affected the education in Cyprus (Kimitris, 2018) and which should be taken into account when using research tools created for populations from other contexts like the way people perceive parental support or educational and professional goals after experiencing an invasion into their country.

Regarding CDSES-SF, the questionnaire taken from bibliography, Confirmatory Factor Analysis (CFA) was conducted, as proposed by the creators of the scale Betz et al.

(1996) to support the validity of the questionnaire among Cypriots. CFA is typically the factor analysis which is used for an instrument which has been assessed before (Worthington & Whittaker, 2006). The purpose was to find out how many of the given factors underlie the set of items (Tabachnick & Fidell, 2001) and to evaluate or confirm whether the specific measurement model is replicated in the specific sample (Worthington & Whittaker, 2006). For the newly developed scale, Exploratory Factor Analysis (EFA) was used, as it is a factor analysis which is considered more suitable to assess the construct validity during the initial development of a questionnaire (Worthington, and Whittaker, 2006). EFA, according to Worthington and Whittaker (2006), is more suitable in newly developed scales as “it allows items to be related to any of the factors underlying examinee responses. As a result, the developer can easily identify items that do not measure an intended factor or that simultaneously measure multiple factors, in which case they could be poor indicators of the desired construct and eliminated from further consideration” (Worthington & Whittaker, 2006, p. 807).

3.4.2 Steps to Validation

The steps followed to achieve validity are mainly based on DeVellis (2003) recommendations for constructing new instruments especially for the newly developed scale. DeVellis (2003) suggested a) firstly to determine what to measure, b) to generate a pool of items, c) to determine the format of the measure, d) to get experts review the items, e) to validate the scale, f) to administer the items to a sample, g) evaluate the items and h) finalise the scale in its best length.

Therefore, after reviewing existing theory and research a conceptual foundation was decided. CDSSES-SF was chosen to measure career decision self-efficacy beliefs and a pool

of items was generated to measure parental support. Then, CDSES-SF was translated into Greek and approved by the creators whereas for the new scale a pool of 50 items was created. A critical step in the process was the expert's review of both the translation and the newly developed scale items since items that are poorly worded, not clear, concise and readable (Worthington & Whittaker, 2006), may reduce the strength of correlations among items and diminish the objectives of the scale (Quintana & Minami, 2006). Then, the scales were administered to a small sample via a pilot study to evaluate the scales and their appropriateness for the specific sample. After finalising the scales, the main research was conducted to a bigger sample to enable factor analysis. Confirmatory and Exploratory Factor analysis of the finalised scales led to the optimised scales length suitable for the specific sample. More specifically and analytically the steps followed to achieve the best scales construction and validity are described in detail below:

Step 1: Signed agreement from Mindgarden (the company responsible for distributing CDSES-SF) that the questionnaire could be translated into Greek. Mindgarden also approved the actual Greek translation.

Step 2: Both questionnaires, CDSES-SF and the one created by the researcher, were given to an expert (Educational Psychologist). For the first part of the questionnaire CDSES-SF, taken from the literature, the expert examined the translation into Greek and she did not have any remarks or suggestions for corrections. Regarding the second part, she checked for question construction to ensure the questionnaires did not contain common errors such as leading or confusing questions. Her feedback was very important and related mainly to the wording and included suggestions for exploring the items. For example, one suggestion was to replace the word "*help*" with "*support*" in item 1 and 5; another was to provide more clarifications, for example, item 30 "*Encourage me to consider many different options*" her

suggestion was to change into “*Encourage me to consider many different educational and career options*”.

Step 3: After the agreement was given and the questions were checked by the expert, three high school-age students and their parents answered the questionnaires to ensure the questions were understandable to them. They were asked to highlight the ones that they could not understand or were difficult to answer and why. In general, the participants found the questionnaires easy to answer, and they suggested to rephrase some questions in order to be more understandable. After their feedback, some changes were made. They expressed difficulty in answering double-barrelled questions, so, for example, item 8 “*Really try to understand my feelings and the way of thinking*” became item 8a “*Really try to understand my feelings*” and item 8b “*Really try to understand my way of thinking*”.

Step 4: When all the feedback had been taken into consideration, the researcher applied for a formal consent to research by the Cyprus Centre for Educational Research and Evaluation responsible for Evaluation and indexing of research studies conducted in Cypriot schools.

Step 5: Run a pilot study with a convenience sample of 40 students and 10 of their parents.

Step 6: Validation Analysis took place after conducting the main research

3.4.3 Description of the Validation analysis

Validation Analysis took place with the data of the main research. The two instruments have been validated for both parents and students together. This was done because it was necessary to have the same structures between students’ and parents’

questionnaires in order to achieve matching and compare students' and parents' answers to map the research questions which investigated the possibility of different perceptions between parents and students regarding self-efficacy beliefs and parental support. If the validation was conducted separately for students' and parents' answers different structures might come out therefore comparisons will not be possible to be made.

From the data acquired from the scales, Confirmatory and Exploratory Analyses were conducted to test the construct validity of the scales. Confirmatory Factor Analysis (CFA) was conducted for Part 1(a) (Betz et al., 1996) for both students' and parents' questionnaires to identify factor loadings, seeking out common themes in questions that load onto the same factors. Different models were examined to determine the factor structure. During this analysis, irrelevant or weak questions were weeded out. Exploratory Factor Analysis was conducted for Part 1(b) (the questionnaire created by the researcher) to measure the reliability of the questionnaire for both students and parents together by using the combined method. For this purpose, Cronbach's Alpha (CA) Test was conducted to review the internal consistency of questions that load onto the same factors. By checking the correlation between questions loading on the same factor, it measures question reliability, ensuring the survey answers are consistent. A detailed description of the validation is presented below for each questionnaire separately.

3.4.3.a Part 1(a): CDSES-SF

First, Confirmatory Factor Analysis (CFA), (as proposed by the creators of the scale Betz et al., 1996), using SPSS 18.0, with maximum likelihood estimation, was conducted for both parents and students but the proposed five-factor model of the scale (Betz et al.,1996) was not confirmed. A series of CFAs was conducted to determine the factor structure of the CDSES-SF for Cypriot high school-age students. Three alternative models identified in the

published literature were examined with CFA: a) one-factor model presented by Miller et al. (2010), b) Hampton's (2005) three-factor model, and Gaudron's (2011) and Buyukgoze-Kavas (2014) four-factor model. Several recommended fit indices were used to assess model fit (chi-square, CFI and RMSEA). According to the results of CFAs, the best model in this sample was Gaudron's (2011) four-factor model with 18 items of CDESES-SF. Below, Table 4 shows analytically the summary of fit indices of the different models employed for parents' questionnaire and table 5 for students:

Table 4: Summary of Fit Indices of the Different Models for Parents' Questionnaire

| Model | χ^2 | Df | P | χ^2/df | RMSEA | CFI |
|---|----------|-----|------|-------------|-------|------|
| 25-item scale | | | | | | |
| Betz et al. (1996) five-factor | 665,302 | 265 | ,000 | 2,511 | ,105 | ,811 |
| Miller et al. (2009) one-factor | 680,235 | 275 | ,000 | 2,474 | ,103 | ,809 |
| Gaudron (2011) & Kavas (2014) four-factor | 241,897 | 129 | ,000 | 1,875 | ,080 | ,911 |
| Hampton (2005) three-factor | 159,450 | 62 | ,000 | 2,572 | ,107 | ,888 |

Table 5: Summary of Fit Indices of the Different Models for Students' Questionnaire

| Model | χ^2 | Df | P | χ^2/df | RMSEA | CFI |
|---|----------|-----|------|-------------|-------|------|
| 25-item scale | | | | | | |
| Betz et al. (1996) five-factor | 920,164 | 265 | ,000 | 3,472 | ,074 | ,852 |
| Miller et al. (2010) one-factor | 989,394 | 275 | ,000 | 3,598 | ,076 | ,839 |
| Gaudron (2011) & Kavas (2014) four-factor | 328,810 | 129 | ,000 | 2,549 | ,058 | ,928 |
| Hampton (2005) three-factor | 194,091 | 62 | ,000 | 3,131 | ,069 | ,921 |

The most recommended fit indices were used to assess the model fit (Kline, 2005; McDonald, and Ho, 2002). The fit indices were used to test the four models. First, the five-factor model of the CDESES-SF 25-item scale, originally proposed by Betz et al., (1996) and Miller et al. (2009), and one-factor model were not found to fit the specific data. Hampton's (2005) three-factor model was also tested, which did not fit the data either. Gaudron's (2011)

four-factor model which was also used by Buyukgoze-Kavas (2014) seemed to fit the data best

As determined by the CFA Gaudron's (2011) four factor model was the best model for this research as the figures meet the acceptable recommended ones by bibliography. The most frequent suggestion for chi-square (χ^2/df) is that it should be less than 3 (Chin, and Todd 1995; Klein 1998). For the RMSEA, Hu and Bentler (1999) recommend a value close to 0.06. For the comparative fit, index values larger than 0.90 are recommended (Klein, 1998; Tabachnick & Fidell, 1996) (Table 6).

Then the four-factor measurement model was examined for equivalence across groups (i.e. students and parents). CFA analyses provided evidence that the measurement model was invariant across groups (i.e. students and parents).

Table 6: Factor structure of the CDESES-SF for Cypriot high school-age students and their parents

| QUESTIONS | ITEMS | FACTOR |
|-----------|--|---------------------------------------|
| 9 | Determine what your ideal job would be | Factor 1 (Goal Selection) |
| 16 | Make a career decision and then not worry about whether it was right or wrong | |
| 11 | Choose a career that will fit your preferred lifestyle | |
| 6 | Select one occupation from a list of potential occupations you are considering | |
| 22 | Define the type of lifestyle you would like to live | |
| 13 | Change majors if you did not like your first choice | Factor 2 (Problem-solving) |
| 17 | Change occupations if you are not satisfied with the one you enter | |
| 25 | Identify some reasonable major or career alternatives if you are unable to get your first choice | |
| 23 | Find information about graduate or professional schools | Factor 3 (Information Gathering) |
| 15 | Find out about the average yearly earnings of people in an occupation | |
| 21 | Identify employers, firms, and institutions relevant to your career possibilities | |
| 19 | Talk with a person already employed in a field you are interested in | |
| 1 | Use the internet to find information about occupations that interest you | |
| 8 | Persistently work at your major or career goal even when you get frustrated | Factor 4 (Goal Pursuit Management) |
| 7 | Determine the steps you need to take to successfully complete your chosen major | |
| 3 | Make a plan of your goals for the next 5 years | |
| 4 | Determine the steps to take if you are having academic trouble with an aspect of your chosen major | |
| 18 | Figure out what you and are not ready to sacrifice to achieve your career goals | |

Reliability analysis with Cronbach A was also conducted on the main data to investigate the reliability for each scale based on Gaudron's (2011) four-factor model with 18 items of CDESES-SF. Table 8 below shows the reliability statistics for each scale. The reliability of the four scales score ranged from .70 to .79.

Table 7: Reliability Statistics with Cronbach A analysis.

| Factors | Cronbach's Alpha |
|----------------------------------|------------------|
| Scale 1: Goal Selection | ,769 |
| Scale 2: Problem-solving | ,729 |
| Scale 3: Information Gathering | ,698 |
| Scale 4: Goal Pursuit Management | ,789 |

N: 454

3.4.3.b Part 1(b): Parental Support

Exploratory Factor Analysis was conducted using Maximum Likelihood with orthogonal (varimax) rotations for both samples together (i.e. students and parents). All factors with eigenvalues greater than one were retained. The analysis identified four factors, with 53.89% of the total variance explained. The resulting four-factor solution was interpretable and straightforward. Some items were deleted though due to low communalities (<0.40) and cross-loadings (items loading on two or more factors). Table 8 shows the Factor structure of Part B questionnaire for Cypriot high school-age students and their parents and Table 9 shows the loadings on each item of the questionnaire. Cronbach's Alpha (CA) Test was also conducted in order to review the internal consistency of questions that load onto the same factors presented in Table 9.

Table 8: Combined (for Cypriot high school-age students and their parents) Factor structure of Part B questionnaire

| QUESTIONS | ITEMS | FACTORS |
|-----------|---|---|
| 32 | Encourage me to make plans for the future | Factor 1 (Self-Enhancement) |
| 33 | Provide chances to be informed about my final plans | |
| 30 | Encourage me to consider many different educational and career options | |
| 28 | Discuss with me about my expectations from selecting specific goals | |
| 34 | Show understanding in changing my decisions | |
| 26 | Encourage me to try new activities | |
| 31 | Discuss with me about alternative choices | |
| 29 | Talk to me about the steps involved in goal selection | |
| 27 | Encourage me to be involved in extracurricular activities | |
| 25 | Lead me to select a goal that fits my interests | |
| 47 | Give me the chance to contribute when the family has to solve a problem | |
| 35 | Help me acknowledge the positives and negatives of my plans | |
| 38 | Discuss with me the possibility to change my future plans | |
| 48 | Let me solve problems by my own | |
| 46 | Talk to me about the steps in solving a problem | |
| 50 | Support me emotionally even when I am frustrated with problem-solving | |
| 37 | Ask what careers I am considering for my future | |
| 7 | Encourage me to make my own decision | Factor 2 (Reciprocal Communication) |
| 6 | Tell me they are proud of me | |
| 3 | Treat my mistakes as learning experiences | |
| 2 | Spend time with me to discuss one to one | |
| 8a | Really try to understand my feelings | |
| 4 | Emphasize my strengths | |
| 5 | Support me to acquire social skills | |
| 8b | Really try to understand my way of thinking | |
| 9 | Help me feel better when I am worried/stressed or concerned about | |
| 15 | Push me to a career direction reflective of their interests than mine | Factor 3 (Parental active involvement) |
| 24 | Insist on them selecting a goal for me | |
| 17 | Participate with me in structured exhibitions/workshops/lectures regarding career | |
| 14 | Have specific career traditions | |
| 13 | Offer to me new career experiences | |
| 19 | Discuss with me the results of career tests | |
| 18 | Encourage me to take career tests | |
| 40 | Respect my future plans | Factor 4 (Emotional Support) |
| 49 | Trust me | |
| 39 | Promise to support economically for my future plans | |
| 36 | Encourage me to make my own decisions | |
| 42 | Negotiate various solutions to a problem that I face | |

Four-factor solution resulted in factor 1: Self-Enhancement which contained 17 items, factor 2: Reciprocal Communication with nine items, factor 3: Parental active involvement with seven items and factor 4: Emotional Support with five items. The questionnaire was initially created containing five factors based on the same factors of CDSES-SF. Each factor contained ten items. Factors were restructured after exploratory factor analysis and from five factors we ended up with four. Some items were deleted due to low communalities. The restructuring of the items led to the renaming of the factors as well. The four factors describe four parental ways employed to enhance career decision self-efficacy beliefs. The renamed factors are related to the four sources of information of self-efficacy beliefs described by Bandura for self-efficacy beliefs, mastery experience, verbal persuasion, vicarious experience and affective arousal. The initial thinking, when creating the questionnaire, to use the same five factors of Part 1(a), self-appraisal, goal selection, problem-solving and occupational information and planning was abandoned after validation analysis.

Table 9: Loadings for each item

| ITEMS | 1 (Self- Enhance ment) | 2 (Reciprocal Communicati on) | 3 (Parental active involvement) | 4 (Emotional Support) |
|--|---------------------------------|--|--|-----------------------------|
| 32.Encourage me to make plans for the future | ,789 | | | |
| 33.Provide chances to be informed about my final plans | ,784 | | | |
| 30.Encourage me to consider many different educational and career options | ,782 | | | |
| 28.Discuss with me about my expectations from selecting specific goals | ,756 | | | |
| 34.Show understanding in changing my decisions | ,753 | | | |
| 26.Encourage me to try new activities | ,751 | | | |
| 31.Discuss with me about alternative choices | ,748 | | | |
| 29.Talk to me about the steps involved in goal selection | ,736 | | | |
| 27.Encourage me to be involved in extracurricular activities | ,717 | | | |
| 25.Lead me to select a goal that fits my interests | ,700 | | | |
| 47.Give me the chance to contribute when the family has to solve a problem | ,639 | | | |
| 35.Help me acknowledge the positives and negatives of my plans | | | | |
| 38.Discuss with me the possibility to change my future plans | ,597 | | | |
| 48.Let me solve problems by my own | ,526 | | | |
| 46.Talk to me about the steps in solving a problem | ,511 | | | |
| 50.Support me emotionally even when I am frustrated with problem-solving | ,509 | | | |
| 37.Ask what careers I am considering for my future | ,505 | | | |
| 7. Encourage me to make my own decision | | ,751 | | |
| 6.Tell me they are proud of me | | ,740 | | |
| 3.Treat my mistakes as learning experiences | | | | |
| 2.Spend time with me to discuss one to one | | ,684 | | |
| 8a.Really try to understand my feelings | | ,631 | | |
| 4.Emphasize my strengths | | ,613 | | |
| 5.Support me to acquire social skills | | ,605 | | |
| 8b.Really try to understand my way of thinking | | ,603 | | |
| 9.Help me feel better when I am worried/stressed or concerned about | | ,574 | | |
| 15.Push me to a career direction reflective of their interests than mine | | ,539 | | |
| 24.Insist on them selecting a goal for me | | | ,776 | |
| 17.Participate with me in structured exhibitions/workshops/lectures regarding career | | | ,724 | |
| 14.Have specific career traditions | | | ,665 | |
| 13.Offer to me new career experiences | | | ,629 | |
| 19.Discuss with me the results of career tests | | | ,615 | |
| 18.Encourage me to take career tests | | | ,596 | |
| 40.Respect my future plans | | | ,580 | |
| 49.Trust me | | | | ,754 |
| 39.Promise to support economically for my future plans | | | | ,735 |
| 36.Encourage me to make my own decisions | | | | ,633 |
| 42.Negotiate various solutions to a problem that I face | | | | ,624 |
| | | | | ,477 |
| Variance explained % | 30,614 | 13,221 | 7,518 | 2,545 |
| Cumulative % | 30,614 | 43,835 | 51,352 | 53,897 |

3.5 Analysis of the main research

3.5.1 Purpose

The analysis that took place for the main research aimed to address the research questions. For the analysis, SPSS Statistical package-2020 was used. The sample consisted of adolescents and their parents. In order to explore the data of this study and answer the research questions the sample was tested in two levels and for the two parts of the questionnaire, the first one included the whole sample (454 adolescents and 138 parents) and the second one the matching sample (115 pairs of parents and their children).

The purpose of this study which was to measure adolescents' career decision self-efficacy beliefs in Cyprus from the adolescents' and their parents' point of view, and the influence of parental support. Adolescents' gender and type of school s/he attended, as well as the parents' educational level (independent variables) were also investigated to see whether they play a significant role in the way adolescents and parents perceive self-efficacy beliefs and support. The study also attempted to achieve a matching sample of questionnaires which would enable the investigation of any significant difference of the participants', (adolescents and parents), perceptions of self-efficacy and parental support. Specifically, the main research questions were to find out:

A. Whole Sample - From the parents' and adolescents' point of view separately

1) Part 1 (a) – Career Decision Self-Efficacy Scale-Short Form

- a) Which of the four variables, which were confirmed with validation with factor analysis by adopting Gaudron's (2011) four-factor model with 18 items of CDESES-SF, goal selection, problem-solving, information gathering, and goal

pursuit management, are the most influential in shaping the career decision self-efficacy beliefs of adolescents in Cyprus?

b) Whether there is a significant difference of the degree of self-efficacy beliefs from the point of view of adolescents and parents regarding:

- ✓ Gender
- ✓ School they attend (Lyceum or Technical school)
- ✓ Mother's Educational Level
- ✓ Father's Educational Level

c) Which parental ways are employed to enhance career decision self-efficacy beliefs predict adolescents' career decision self-efficacy beliefs?

2) Part 1 (b) – Parental Support Questionnaire:

a) Which ways parents use to enhance career decision self-efficacy beliefs, self-enhancement, reciprocal communication, parental active involvement and emotional support, are most influential in shaping the career decision self-efficacy beliefs for adolescents in Cyprus.

b) Whether there is a significant difference of the degree of parental support from the point of view of adolescents and parents across:

- ✓ Gender
- ✓ School they attend (Lyceum or Technical school)
- ✓ Mother's Educational Level
- ✓ Father's Educational Level

c). Which ways that parents use to enhance career decision self-efficacy beliefs predict adolescents' career decision self-efficacy beliefs?

B. Matching Sample

- a) Whether there is a significant difference in adolescents' career decision self-efficacy beliefs when comparing parents' and adolescents' views
- b) Whether there is a significant difference in the perception of parental support when comparing parents' and adolescents' perception.

3.5.2 Models employed

The analysis that took place for the main research aimed to address the research questions. For the purpose of the analysis the SPSS Statistical Package-Version 2020 was used. Firstly, descriptive statistics were used to present the means and standard deviations of self-efficacy beliefs and the competencies which describe self-efficacy beliefs and the parental support and the sources of information through which support is provided. Independent sample t-tests were then conducted to examine whether mean scores of self-efficacy beliefs, differed by parents' and adolescents' gender and the type of school the adolescents attended. One-way ANOVAs were also conducted to test whether means scores of self-efficacy beliefs differed by parents' parents' educational level. In case of significant F tests, Bonferroni post-hoc analyses were conducted to determine between which pair of education level the differences occurred. Multiple regression analyses were used to find out which variables from the four sources of information, used by parents to enhance their children's self-efficacy, significantly predicted parents' perceptions of CDSE and adolescents' perceptions of CDSE. Regarding the matching sample, paired sample t-tests were conducted to compare the mean scores between parents' and adolescents' perception of self-efficacy beliefs and parental support.

Specifically, regarding the whole sample, for both parents' and students' questionnaires, the following analyses took place: Firstly, a data description was achieved

through descriptive statistics to gain an overall picture that summarizes the data. Descriptive statistics describe the measurements of central tendency and the variability of each item, and/or of each variable. The mean scores (M), the average of all the samples involved, give the tendency while the standard deviation (SD) the spread of the values around the central tendency, the variance. Descriptive statistics were used to summarize the data from students' and parents' questionnaires derived from a) Career Decision Self-Efficacy Scale – Short Form (Betz et al., 1996) and the four competencies of self-efficacy, and b) Parental support scale and the four parental ways of support. career decision self-efficacy. The mean and the standard deviation gave an overall impression of the results of the research.

Secondly, an independent-samples t-test was conducted to compare the independent variables, which consisted of two groups. A t-test group is a technique employed to compare the mean values of two sets of scores. The comparison of the mean values of the two groups is necessary in order to evaluate whether the difference between the two means is statistically significant. T-tests groups were employed to compare the means scores for the independent variables of gender (students' and parents' gender) and the type of school students attend (Lyceum or Technical school).

Thirdly, one-way ANOVA was employed to compare more than two sets of scores. ANOVA is a statistical analysis similar to independent-samples t-test but with which the comparison of more than two groups can be achieved and also a Bonferroni posthoc analysis can be performed to find out which of the comparison groups are statistically significant. Bonferroni posthoc test is considered to be conservative in the sense that it shows significance only when there are significant differences between the groups' means. One-way ANOVA and Bonferroni posthoc test were used to compare the mean scores of parents'

educational level, which consisted of 5 groups, in both students' and parents' questionnaires and reveal any statistically significant difference among the groups of educational levels.

The last analysis for the whole sample was multiple regression to find out which variable can be the stronger one to predict CDSE for both parents' and students' sample. Multiple regression is a causal model "where the predictor variables are assumed to have a cause-effect connection with the outcome variable" (Hartas, 2010, p.391). Multiple regression analysis allowed data to reveal, firstly, which source of information parents use to support their children predict children's career decision self-efficacy beliefs and, secondly, which independent variables, students' gender, fathers' and mothers' educational level and the type of school students attend predict students' career decision self-efficacy beliefs. Multiple regression analysis was conducted for both parents' and adolescents' questionnaires.

Referring to the matching sample, paired sample t-test, or dependent sample t-test, was conducted to compare the mean scores between and parents and their children (matching) for career decision self-efficacy beliefs and parental support. Paired sample t-test is a statistical procedure used to determine whether the mean difference between two sets of observations is zero. The paired sample t-test was performed to find out correlations between students' and their parents' answers regarding career decision self-efficacy beliefs and parental support and the four variables for each dependent variable.

Figure 4: Diagram of Analysis: A diagram of the analysis performed to serve the purpose of this study is presented

WHOLE SAMPLE

Adolescents' Questionnaire

| | PART 1 (A) Career Decision Self-Efficacy (CDSE) | PART 1 (B) Parents' Support | |
|---|--|---|---|
| CAREER DECISION SELF-EFFICACY | | PARENTAL SUPPORT | |
| Self- efficacy competen cies | Goal Selection | Self-enhancement | Ways to enhance career decision self- efficacy beliefs |
| | Problem-solving | Reciprocal Communication | |
| | Information Gathering | Parental Active Involvement | |
| | Goal Pursuit Management | Emotional Support | |
| Mean and Standard Deviation (STDDEV) for CDSE and each competence | | Mean and Standard Deviation (STDDEV) for parental support and each source | |

| Part 2 – Independent Variables | |
|---------------------------------------|---------------|
| Students' Gender | T-test Groups |
| Fathers' Educational Level | One Way Anova |
| Mothers' Educational Level | One Way Anova |
| School students attend | T-test Groups |

| Part 2 – Independent Variables | |
|---------------------------------------|--|
| Students' Gender | |
| Fathers' Educational Level | |
| Mothers' Educational Level | |
| School students attend | |

Which variable predicts more CDSE



Multiple Regression Analysis

| |
|----------------|
| Students' CDSE |
|----------------|

| | |
|--|------------------------------------|
| Ways to enhance career decision self- | Self-enhancement |
| | Reciprocal Communication |
| | Parental Active Involvement |
| | Emotional Support |

Which source predicts more CDSE



Multiple Regression Analysis

| |
|----------------|
| Students' CDSE |
|----------------|

Parents' Questionnaire

| | PART 1 (A) Career Decision Self-Efficacy (CDSE) | PART 1 (B) Parents' Support | |
|--|---|---|---|
| | CAREER DECISION SELF-EFFICACY | PARENTAL SUPPORT | |
| Self- efficacy competencies | Goal Selection | Self-enhancement | Ways to enhance career decision self- efficacy |
| | Problem-solving | Reciprocal Communication | |
| | Information Gathering | Parental Active Involvement | |
| | Goal Pursuit Management | Emotional Support | |
| | Mean and Standard Deviation (STDDEV) for CDSE and each competence | Mean and Standard Deviation (STDDEV) for parental support and each source | |

| Part 2 – Independent Variables | |
|---------------------------------------|---------------|
| Parents' Gender | T-test Groups |
| Parents' Educational Level | One Way ANOVA |
| School students attend | T-test Groups |

| Part 2 – Independent Variables |
|---------------------------------------|
| Students' Gender |
| Fathers' Educational Level |
| Mothers' Educational Level |
| School students attend |

Which variable predicts more CDSE



Multiple Regression Analysis

| |
|-----------------------|
| Students' CDSE |
|-----------------------|

| | |
|---|------------------------------------|
| Ways to enhance career decision self- efficacy | Self-enhancement |
| | Reciprocal Communication |
| | Parental Active Involvement |
| | Emotional Support |

Which source predicts more CDSE



Multiple Regression Analysis

| |
|-----------------------|
| Students' CDSE |
|-----------------------|

MATCHING SAMPLE

| CAREER DECISION SELF-EFFICACY | | | | |
|--|------------------------------------|--|---|---|
| PART 1 (A) Career Decision Self-Efficacy (CDSE) STUDENTS' QUESTIONNAIRE | | | PART 1 (A) Career Decision Self-Efficacy (CDSE) PARENTS' QUESTIONNAIRE | |
| SELF-EFFICACY | | | SELF-EFFICACY | |
| Self-efficacy competencies | Goal Selection |  | Goal Selection | Self-efficacy competencies |
| | Problem-solving |  | Problem-solving | |
| | Information Gathering |  | Information Gathering | |
| | Goal Pursuit Management |  | Goal Pursuit Management | |
| T-test Pairs Analysis | | | | |
| PARENTAL SUPPORT | | | | |
| PART 1 (B) Parental Support STUDENTS' QUESTIONNAIRE | | | PART 1 (B) Parental Support PARENTS' QUESTIONNAIRE | |
| Parental Support | | | Parental Support | |
| Ways to enhance career decision self- efficacy | Self-enhancement |  | Self-enhancement | Ways to enhance career decision self- efficacy |
| | Reciprocal Communication |  | Reciprocal Communication | |
| | Parental Active Involvement |  | Parental Active Involvement | |
| | Emotional Support |  | Emotional Support | |
| T-test Pairs Analysis | | | | |

3.6 Summary

This chapter presented the methodology and methods employed for the purposes of this study. Specifically, it aimed to present the specific strategies and methods employed and how these served this study's purposes. Besides, this chapter explained the sampling strategies employed, described of the steps that led to validation and explained the limitations of the methodological and sampling choices for the findings of this study.

As already mentioned, this study used two questionnaires CDESES-SF by Betz et al. (1996) and one created by the researcher. This research consisted of two phases. The first phase consisted of a validation analysis for both questionnaires. The validation was achieved through specific steps, formal consent by the creators of the translation into Greek of the first questionnaire, formal consent by the Cyprus Centre for Educational Research and Evaluation, face validity, pilot study and validation analysis by using Confirmatory Factor Analysis (CFA) and Cronbach's Alpha (CA) Test. Validation aimed at identifying factor loadings seeking out common themes in questions that load onto the same factors and reviewing the internal consistency of questions that load onto the same factors.

The second phase was more exploratory as it aimed to provide a more in-depth investigation of the data collected. For the purpose of the analysis, the sample was divided into the whole sample, including all participants in the research, and the matching sample, which included the sample which could match parent with their child. The analysis that took place for the primary phase of the research was beneficial to give an overall picture of the career decision self-efficacy beliefs and parental support for the population investigated in Cyprus by descriptive statistics. The possible significant difference of the independent variables of gender, the type of school and parents' educational level with career decision

self-efficacy beliefs were investigated by using independent t-test and t-test ANOVA. Multiple regression was also conducted to find out which variable of parental support predict adolescents' career decision self-efficacy. For the matching sample, dependent sample t-test was conducted to compare the mean scores between and parents and their children (matching) for career decision self-efficacy beliefs and parental support.

This study will contribute to the literature on how parents influence the career self-efficacy expectations of adolescents in Cyprus in terms of the factors than primarily shape the influence with a view to helping school counsellors and parents, for firstly to provide more effective support and plan adequate intervention programs and secondly to acknowledge the importance of parents' support to their children regarding career decision self-efficacy. Besides, the researcher aimed to develop a questionnaire that could be useful to investigate parental support since this was not investigated enough by the research until today.

4. RESULTS

In this chapter the results of the specific research are presented. The presentation is separated into two primary sections, a) reporting the results from the whole sample and b) reporting the results from the matching sample. Both sections are divided into two subsections presenting the results from the adolescents' and parents' questionnaires.

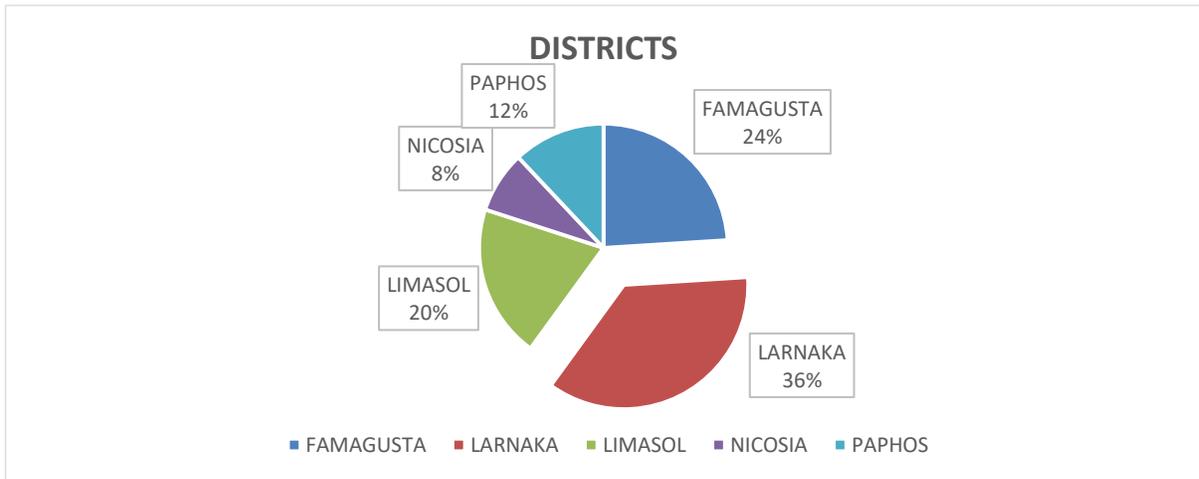
4.1 Whole Sample

This section presents the results of descriptive analyses regarding the whole sample. The sample consisted of 500 adolescents and 139 parents but only 454 of the adolescents' answers and 128 of the parents' answers were considered valid for the analyses because of missing data. The descriptive analyses include: (a) percentages for the sample (district of living, to whom they talk to) and demographic information, (b) percentages for the independent variables (gender, educational level, and type of the school), and (c) mean scores and standard deviations for the variables of self-efficacy competencies and sources of information parents employ to support their children. The results are presented in graphs, charts and tables.

4.1.1 Adolescents' Questionnaires

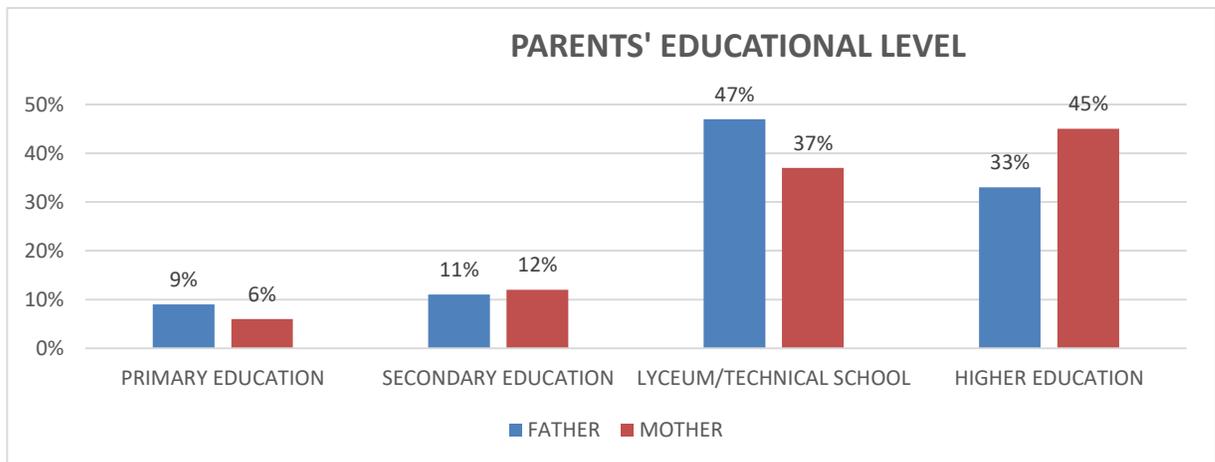
The adolescents who participated in the survey were students of the last grade of Lyceum or Technical School at a mean age of 17 to 18. 44% of the adolescents were males, 47% females and 9% did not specify. The majority (85%) attended Lyceum and 15% Technical School. The sample of adolescents is distributed among all districts of the Republic of Cyprus as presented in chart 1.

Figure 5: District of adolescents' residence



53% of the adolescents stated cities as living area 41% villages and 6% suburb areas. Only 23 adolescents (5,5%) claimed that they did not plan to study and the same percentage 5,5% stated that they planned to work first and then study. Regarding the question to whom they prefer to talk to about their career plans 74% stated that they choose to talk to their mother or/and father and only 2% to their school counsellor and 24% chose to talk either to their friends, grandparents, teachers or other members of their family.

Figure 6: Parents' Educational Level



Participants stated that their parents' highest educational level. The majority of mothers, 45% have completed higher education whereas for fathers the majority have completed Higher Secondary education and 33% of them have completed higher education. A very low percentage of fathers, 20% and 18% of mothers have only completed primary and Low Secondary Education.

4.1.1.a Part 1(a)

This subsection presents the adolescents' answers to the CDSSES-SF by Betz et al. (1996). After confirmatory factor analysis, the five factors initially suggested by the authors were not confirmed. Gaudron's (2011) four-factor model, which was also used by Buyukgoze-Kavas (2014), was adopted because it seemed to fit best the data of this study. The four factors that best described the competencies of career decision self-efficacy which were more significant for the sample of this study were a) goal selection, b) problem-solving, c) information gathering, and d) goal pursuit management.

The participants were asked to state the degree of their confidence to accomplish specific tasks starting with the lowest degree with "No Confidence at all" (1) and the highest degree with "Complete Confidence" (5). Descriptive statistics, including means and standard deviations for each factor and for the total of adolescents' career decision self-efficacy beliefs are summarized in Table 11. As shown in table 11, adolescents showed high means in all variables ranging from 3,39 (problem-solving) to 3,77 (information gathering). The total mean score for CDSE was 3,67.

Table 10: Descriptive Statistics: Means and Standard Deviation for CDSE variables and total (N=454)

| | Mean | SD |
|-------------------------|------|-----|
| Goal Selection | 3,76 | ,75 |
| Problem-solving | 3,39 | ,88 |
| Information Gathering | 3,77 | ,69 |
| Goal Pursuit Management | 3,66 | ,77 |
| Total Mean Score | 3,67 | ,64 |

Responses ranged from “No Confidence at all” (1) to “Complete Confidence” (5)

Besides, the small standard deviation of all scales indicates that there is small variation in participants’ responses.

T-tests were conducted to examine whether males and females differed on the four variables of self-efficacy beliefs and on total mean scores (Table 12). The analyses showed that there was no significant difference between boys and girls in any of the four factors, and for total mean scores (for boys *mean* = 3,64, *SD* = 0,66 and for girls *mean* = 3,70, *SD* = 0,63, *t* = -0,874, *p* = 0,73). It is noticeable, nevertheless, that both genders showed lower confidence for problem-solving skills in the sample, below 3,5, (for boys *Mean* = 3,35, *SD* = 0,87, and for girls *Mean* = 3,42, *SD* = 0,90). Girls seemed to feel more confident in information gathering skills (*Mean* = 3,82, *SD* = 0,66) in comparison to the other variables while boys express more confidence in goal selection skills (*Mean* = 3,76, *SD* = 0,74). While this study failed to detect any differences between boys and girls.

Standard deviation is below 1, for all variables and the total score, meaning that participants’ answers have low variance. It worth mentioning that the standard deviation for the total score, for both boys (*SD* = 0,66) and girls (*SD* = 0,63), is low. This can imply that

males and females who participated in this research share the same degree of career decision self-efficacy beliefs therefore are equivalent in confidence in achieving career decision skills.

Table 11: Independent samples t-tests between boys (N= 201) , girls (N=213) on self-efficacy factors and some adolescents did not specify their gender (N=40).

| | | Mean | SD | T | P |
|-------------------------|------|------|-----|-------|------|
| Goal Selection | Boy | 3,77 | ,74 | ,09 | 0,55 |
| | Girl | 3,76 | ,78 | | |
| Problem-solving | Boy | 3,35 | ,87 | -,89 | 0,35 |
| | Girl | 3,42 | ,90 | | |
| Information Gathering | Boy | 3,74 | ,72 | -1,29 | 0,22 |
| | Girl | 3,82 | ,66 | | |
| Goal Pursuit Management | Boy | 3,61 | ,79 | -,95 | 0,86 |
| | Girl | 3,68 | ,76 | | |
| Total Score mean | Boy | 3,64 | ,66 | -,87 | 0,73 |
| | Girl | 3,70 | ,63 | | |

Responses ranged from “No Confidence at all” (1) to “Complete Confidence” (5)

This study also investigated whether there were any differences across the school the adolescents attend (Lyceum and Technical school) on career decision self-efficacy beliefs (Table 13). The independent-samples t-tests did not show any statistically significant differences on the means of self-efficacy beliefs across the two types of schools. Interestingly, the mean score is higher than 3,5 for all variables except problem-solving which is lower showing that participants in both schools, Lyceum ($Mean = 3,37, SD = 0,89,$) and Technical School ($Mean = 3,45, SD = 0,79$) feel less confident in attempting tasks involving problem-solving.

Low variance, below 1, is observed among the participants in Lyceum ($SD=0,64$) and Technical School ($SD=0,67$) indicating that the participants agree on the degree of confidence they have in all variables of self-efficacy beliefs and the total.

Table 12: Independent samples t-tests between lyceum (N= 386) and technical school (N=68) on self-efficacy factors

| | | Mean | SD | t | P |
|-------------------------|------------------|------|-----|-------|------|
| Goal Selection | Lyceum | 3,78 | ,75 | -,97 | 0,50 |
| | Technical school | 3,68 | ,76 | | |
| Problem-solving | Lyceum | 3,37 | ,89 | ,69 | 0,15 |
| | Technical school | 3,46 | ,79 | | |
| Information Gathering | Lyceum | 3,78 | ,69 | -1,01 | 0,98 |
| | Technical school | 3,69 | ,70 | | |
| Goal Pursuit Management | Lyceum | 3,67 | ,76 | ,19 | 0,80 |
| | Technical school | 3,68 | ,81 | | |
| Total Score mean | Lyceum | 3,68 | ,64 | -,39 | 0,92 |
| | Technical school | 3,65 | ,67 | | |

Responses ranged from “No Confidence at all” (1) to “Complete Confidence” (5)

Mothers’ educational level was another independent variable which was tested by conducting one-way ANOVA to reveal any possible significant difference between the mean scores of career decision self-efficacy beliefs and mothers’ four educational levels (Table 13). The analysis did not reveal any statistically significant difference among the four different mothers’ educational levels, showing that mothers’ level of education does not differentiate adolescents’ career decision self-efficacy beliefs. Nevertheless, it is worth noticing some of the scores. The means in all variables and for all levels of mothers’ education are above 3,5 apart from problem-solving factor/variable which implies that adolescents have the tendency to avoid tasks necessary for problem-solving ($Mean = 3,39$, $SD = 0,89$).

Standard deviation is below 1 in all variables for all levels of mothers’ education apart from problem-solving for adolescents whose mothers have only completed primary education ($SD=1,03$) which is also very close to 1. This implies that adolescents share the similar beliefs for their career decision self-efficacy beliefs and their mothers’ educational level has the same effect for all participants in this study.

Table 13: One-way ANOVAs between mothers' Educational level, primary education (N=26), secondary education (N=47), lyceum/technical school (N=154), higher education (N=186), and self-efficacy factors. Some adolescents did not state their mother's educational level (N=41)

| | | Mean | SD | F | P |
|-------------------------|-------------------------|------|------|-----|------|
| Goal Selection | Primary Education | 3,54 | ,99 | ,15 | 1,79 |
| | Secondary Education | 3,67 | ,72 | | |
| | Lyceum/Technical School | 3,85 | ,70 | | |
| | Higher Education | 3,74 | ,78 | | |
| | Total | 3,76 | ,76 | | |
| Problem-solving | Primary Education | 3,28 | 1,03 | ,91 | ,17 |
| | Secondary Education | 3,39 | ,83 | | |
| | Lyceum/Technical School | 3,41 | ,87 | | |
| | Higher Education | 3,38 | ,90 | | |
| | Total | 3,39 | ,89 | | |
| Information Gathering | Primary Education | 3,75 | ,91 | ,44 | ,90 |
| | Secondary Education | 3,68 | ,69 | | |
| | Lyceum/Technical School | 3,81 | ,65 | | |
| | Higher Education | 3,78 | ,69 | | |
| | Total | 3,78 | ,69 | | |
| Goal Pursuit Management | Primary Education | 3,49 | ,91 | ,10 | 2,09 |
| | Secondary Education | 3,63 | ,84 | | |
| | Lyceum/Technical School | 3,68 | ,72 | | |
| | Higher Education | 3,64 | ,79 | | |
| | Total | 3,65 | ,78 | | |
| Total Score mean | Primary Education | 3,54 | ,82 | ,51 | ,76 |
| | Secondary Education | 3,62 | ,64 | | |
| | Lyceum/Technical School | 3,72 | ,61 | | |
| | Higher Education | 3,66 | ,66 | | |
| | Total | 3,67 | ,65 | | |

Responses ranged from "No Confidence at all" (1) to "Complete Confidence" (5)

Fathers' educational level was also tested by conducting one-way ANOVAs to reveal any possible significant differences between the mean scores of career decision self-efficacy beliefs on fathers' four educational levels (Table 14). The analysis did not reveal any

statistically significant differences among the different fathers' educational levels, showing that fathers' education does not differentiate adolescents' career decision self-efficacy beliefs.

The means in all variables and for all levels of fathers' education are higher than 3,5 apart from the variable of problem-solving ($Mean = 3,39, SD = 0,89$) and for the level of primary education, the mean for the goal pursuit management was 3,36 ($SD = 0,75$).

Standard deviation is below 1 in all variables for all levels of fathers' education and the lowest variance is observed in information gathering variable ($SD=0,68$). This implies that adolescents share similar beliefs for their career decision self-efficacy beliefs and their fathers' educational level has similar effect for all participants in this study.

Table 14: One-way ANOVAs between father’s Educational level, primary education (N=37), secondary education (N=44), lyceum/technical school (N=192), higher education (N=137), and self-efficacy factors. Some adolescents did not state their father’s educational level(N=44)

| | | Mean | SD | F | P |
|-------------------------|-------------------------|------|-----|------|------|
| Goal Selection | Primary Education | 3,50 | ,76 | 1,88 | 0,13 |
| | Secondary Education | 3,79 | ,73 | | |
| | Lyceum/Technical School | 3,77 | ,74 | | |
| | Higher Education | 3,83 | ,78 | | |
| | Total | 3,77 | ,76 | | |
| Problem-solving | Primary Education | 3,33 | ,82 | ,83 | 0,48 |
| | Secondary Education | 3,47 | ,83 | | |
| | Lyceum/Technical School | 3,32 | ,89 | | |
| | Higher Education | 3,46 | ,92 | | |
| | Total | 3,39 | ,89 | | |
| Information Gathering | Primary Education | 3,62 | ,66 | ,90 | 0,44 |
| | Secondary Education | 3,75 | ,62 | | |
| | Lyceum/Technical School | 3,81 | ,68 | | |
| | Higher Education | 3,81 | ,72 | | |
| | Total | 3,79 | ,69 | | |
| Goal Pursuit Management | Primary Education | 3,36 | ,75 | 2,09 | 0,10 |
| | Secondary Education | 3,71 | ,74 | | |
| | Lyceum/Technical School | 3,65 | ,76 | | |
| | Higher Education | 3,71 | ,80 | | |
| | Total | 3,65 | ,77 | | |
| Total Score mean | Primary Education | 3,47 | ,61 | 1,66 | 0,17 |
| | Secondary Education | 3,70 | ,57 | | |
| | Lyceum/Technical School | 3,67 | ,64 | | |
| | Higher Education | 3,73 | ,67 | | |
| | Total | 3,68 | ,64 | | |

Responses ranged from “No Confidence at all” (1) to “Complete Confidence” (5)

4.1.1.b Part 1(b)

This subsection presents adolescents’ answers to the parental support questionnaire created by the researcher. Exploratory Factor Analysis was conducted. All factors with eigenvalues greater than one were retained. Analysis identified four factors explaining 53,89% of the total variance. Some items were deleted though due to low communalities (<0,40) and cross loadings (items loading on two or more factors). Cronbach’s Alpha (CA)

Test was also conducted in order to review the internal consistency of questions that load onto the same factors.

The participants were asked to state the degree to which they feel their parents support them regarding career decisions starting with the lowest degree with “Not at all (1)” and the highest degree with “Very much (5)”.

Descriptive statistics, including means and standard deviations for each derived factor are summarized in Table 16. As shown in table 16, the mastery experience scale had the highest mean, vicarious experience had the second highest mean, while the scale verbal persuasion had the third highest mean. The mean for affective arousal was very low.

Table 15: Means and standard deviations of the four scales derived from the parent support questionnaire (N = 454)

| | Mean | SD |
|-----------------------------|-------------|-----------|
| Self-enhancement | 3,81 | ,85 |
| Reciprocal communication | 3,63 | ,71 |
| Parental active involvement | 3,79 | ,71 |
| Emotional support | 2,29 | ,86 |

Responses ranged from “Not at all (1)” to “Very Much (5)”

All adolescents participating in this research claimed that they are very satisfied with the support they receive from their parents regarding the parents’ enhancement to actively involved in career decision process (*Mean=3,81, SD=0,85*), the way their parents support through reciprocal communication (*Mean=3,63, SD=0,71*), the support they get from their parents through their parents’ active involvement and experiences (*Mean=3,79, SD=0,71*), but adolescents state low satisfaction from the way parents_support them emotionally (*Mean=2,29, SD=0,85*).

Most of the items that loaded on each factor have means over 3,5 and closer to 4 meaning that the adolescents feel they have “much” support from their parents. The highest mean is observed in the items “*Support me emotionally even when I am frustrated with problem-solving*” (Mean=4,00, SD=1,17), “*Help me acknowledge the positives and negatives of my plans*” (Mean=3,86, SD=1,12), “*Encourage me to make plans for the future*” (Mean=3,98, SD=1,11), “*Lead me to select a goal that fits my interests*” (Mean=3,82, SD=1,15), and “*Ask what careers I am considering for my future*” (Mean=4,12, SD=1,03). These items seem to be the most influential support items for this population.

The lowest mean is observed in two of the items of the “Parental active involvement” factor/scale with very low means below 3 which shows that children claim that they have “Very little” support from their parents regarding the items “*Encourage me to take career tests*” (Mean=2,91, SD=1,40) and “*Participate with me in structured exhibitions/workshops/lectures regarding career*” (Mean=2,57, SD=1,38).

The standard deviation is over 1 for most of the items which means that the adolescents’ answers have quite high variance. This observation could be explained when the analysis tested the role of the independent variables and their significance for the parental support. The highest standard deviation is observed in the items “*Really try to understand my feelings*” (Mean=3,85, SD=2,22) and “*Give me the chance to contribute when the family has to solve a problem*” (Mean=3,71, SD=2,23) implying that adolescents’ answers varied regarding how much their parents try to understand their feelings and how much they are given the chance to contribute to the family problems.

T-tests and ANOVAs were then conducted to examine whether there were any differences on the means of the four derived scales across adolescents' gender, school they attended and parental education.

Table 16: Independent samples t-tests between boys (N= 201) and girls (N=213) on the four derived factors from the parental support questionnaire. Some adolescents did not state their gender (N=40)

| | Gender | Mean | SD | T | P |
|-----------------------------|--------|------|-----|-------|-------|
| Self-Enhancement | Boy | 3,74 | ,79 | -1,94 | 0,05* |
| | Girl | 3,91 | ,91 | | |
| Reciprocal communication | Boy | 3,63 | ,71 | ,18 | 0,86 |
| | Girl | 3,62 | ,73 | | |
| Parental active involvement | Boy | 3,76 | ,70 | -,64 | 0,52 |
| | Girl | 3,81 | ,70 | | |
| Emotional support | Boy | 2,46 | ,96 | 2,90 | 0,00* |
| | Girl | 2,21 | ,75 | | |

* p<0,05

Independent samples t-tests were conducted to test the possibility of difference among genders in the way adolescents perceive parental support with regards to the four ways of parental support (for means and standard deviations see Table 17). The analysis showed that there was no significant difference between boys and girls for the factors of “*Reciprocal Communication*” and “*Parental active involvement*”.

On the contrary, significant gender differences were found on parental support regarding “*Self-Enhancement*” (Boys: *Mean=3,74, SD=0,79*; Girls: *Mean=3,91, SD=0,91, p<0.05*) and “*Emotional support*” (Boys: *Mean=2,46, SD=0,96*; Girls: *Mean=2,21, SD=0,75, p<0,001*). Girls seem to declare better satisfaction from the enhancement they have from their parents to get actively involved in the career decision making process than boys, whereas boys perceive more support relating to emotional support in comparison to girls.

Apart from being significantly different, the means for this variable are very low, below 2,5 for both genders meaning that participants do not feel they are supported enough by their parents regarding emotional support as a parental way to enhance adolescents' career decision self-efficacy beliefs.

Standard deviation is below 1, for all variables and the total score, meaning that participants' answers have low variance. It worth mentioning that the standard deviation for both boys and girls is very low. This can imply that males and females who participated in this research share similar feeling about the degree of parental support they get through the four ways of enhancement of career decision self-efficacy beliefs.

Table 17: Independent samples t-tests between Lyceums (N= 386) and Technical schools (N=68) on the four derived factors from the parental support questionnaire

| | School | Mean | SD | T | P |
|--------------------------|------------------|------|-----|------|-------|
| Self-Enhancement | Lyceum | 3,85 | ,85 | 2,08 | 0,04* |
| | Technical School | 3,61 | ,82 | | |
| Reciprocal Communication | Lyceum | 3,64 | ,71 | ,09 | 0,93 |
| | Technical School | 3,63 | ,73 | | |
| | Lyceum | 3,79 | ,72 | | |
| Emotional support | Technical School | 3,74 | ,67 | ,59 | 0,55 |
| | Lyceum | 2,28 | ,86 | | |
| | Technical School | 2,37 | ,87 | | |

* p<0,05

The independent variable of the school the adolescents attend (Lyceum and Technical school) was also examined by conducting a t-test analysis to find out whether this independent variable is connected to the participants' feeling about their parents support within the four parental ways for career decision self-efficacy beliefs (for means and standard deviations see Table 18).

A statistically significant difference (p<0.05) was showed by the analysis in the support they are offered by their parents in the means of self-enhancement and the school

the adolescents attend. It is observed that children who attend Lyceum ($Mean=3,85$, $SD=0,85$) feel they have more support related to the enhancement they get from their parents to be actively involved in the decision-making process than students who attend Technical school ($Mean=3,61$, $SD=0,82$).

Low variance, below 1, is observed among the participants in Lyceum and Technical School indicating that the participants largely agree on their feeling regarding the support they get by their parents.

Table 18: One-way ANOVAs between Mothers' Educational level - primary education (N=26), secondary education (N=47), lyceum/technical school (N=154), higher education (N=186) - and the four derived factors from the parental support questionnaire. Some adolescents did not state their mothers' educational level (N=41)

| | | Mean | SD | F | p |
|-----------------------------|-------------------------|------|------|------|-------|
| Self-Enhancement | Primary Education | 3,60 | 1,14 | ,88 | 0,45 |
| | Secondary Education | 3,76 | ,92 | | |
| | Lyceum/Technical School | 3,87 | ,83 | | |
| | Higher Education | 3,85 | ,81 | | |
| | Total | 3,83 | ,86 | | |
| Reciprocal Communication | Primary Education | 3,36 | ,89 | 1,57 | 0,20 |
| | Secondary Education | 3,56 | ,70 | | |
| | Lyceum/Technical School | 3,68 | ,71 | | |
| | Higher Education | 3,64 | ,71 | | |
| | Total | 3,63 | ,72 | | |
| Parental active involvement | Primary Education | 3,73 | ,88 | ,35 | 0,79 |
| | Secondary Education | 3,71 | ,67 | | |
| | Lyceum/Technical School | 3,82 | ,66 | | |
| | Higher Education | 3,79 | ,72 | | |
| | Total | 3,79 | ,70 | | |
| Emotional Support | Primary Education | 2,22 | ,94 | 4,27 | 0,01* |
| | Secondary Education | 2,07 | ,67 | | |
| | Lyceum/Technical School | 2,25 | ,87 | | |
| | Higher Education | 2,49 | ,88 | | |
| | Total | 2,33 | ,87 | | |

* p<0,01

Mothers' educational level was another independent variable which was tested by conducting one-way ANOVA to reveal any possible significant differences on the mean scores of the parental support factors across mothers' four educational levels (Table 19). The analyses did not reveal any statistically significant differences on the means of self-enhancement, reciprocal communication, and parental active involvement among the four

educational levels. The means in all scales for all levels of mothers' education are above 3,5 apart from emotional support, the mean of which is below 2,5.

Mother's educational level is statistically significant only for emotional support scale ($F=4,27, p<0,01$). The mean for adolescents' mothers who have attended Higher Education ($Mean=2,49, SD=0,88$) is higher than the mean for the ones whose mothers have completed Lyceum/Technical school ($Mean=2,25, SD=0,87$) and higher than the ones who have only completed Secondary Education ($Mean=2,07, SD=0,67$).

The lower mean for all scales is observed for those adolescents whose mothers have completed primary or secondary education whereas the highest is observed for those who have completed Lyceum/Technical School or Higher Education for all factors.

Standard deviation is below 1 in all variables for all levels of mothers' education apart from self-enhancement for adolescents whose mothers have only completed primary education ($SD=1,14$) which is also very close to 1. This implies that adolescents share similar beliefs for their mothers support independently of their mothers' educational level.

Table 19: One-way ANOVAs between fathers' Educational level - primary education (N=37), secondary education (N=44), lyceum/technical school (N=192), higher education (N=137) - and the four derived factors from the parental support questionnaire. Some adolescents did not state their fathers' educational level (N=44)

| | | Mean | SD | F | P |
|-----------------------------|-------------------------|------|-----|------|------|
| Self-Enhancement | Primary Education | 3,72 | ,83 | ,94 | ,42 |
| | Secondary Education | 3,73 | ,90 | | |
| | Lyceum/Technical School | 3,83 | ,88 | | |
| | Higher Education | 3,92 | ,80 | | |
| | Total | 3,84 | ,85 | | |
| Reciprocal Communication | Primary Education | 3,30 | ,67 | 3,02 | ,03* |
| | Secondary Education | 3,63 | ,62 | | |
| | Lyceum/Technical School | 3,66 | ,72 | | |
| | Higher Education | 3,69 | ,74 | | |
| | Total | 3,63 | ,72 | | |
| Parental active involvement | Primary Education | 3,68 | ,68 | 1,42 | ,24 |
| | Secondary Education | 3,79 | ,67 | | |
| | Lyceum/Technical School | 3,74 | ,69 | | |
| | Higher Education | 3,88 | ,73 | | |
| | Total | 3,79 | ,70 | | |
| Emotional Support | Primary Education | 2,25 | ,89 | ,69 | ,56 |
| | Secondary Education | 2,19 | ,77 | | |
| | Lyceum/Technical School | 2,34 | ,87 | | |
| | Higher Education | 2,39 | ,90 | | |
| | Total | 2,33 | ,87 | | |

The mean difference is significant at the 0,050 level * $p < 0,05$

Fathers' educational level was also tested by conducting one-way ANOVAs to reveal any possible significant differences on the mean scores of the parental support factors across fathers' four educational levels (Table 20). The analysis revealed for factor "Self-Enhancement" statistically significant difference ($F=3,02$, $p=0,03$) among the four different fathers' educational levels, primary education ($Mean=3,30$, $SD=0,67$), Lyceum/Technical

school ($Mean=3,66$, $SD=0,72$), and Higher Education ($Mean=3,69$, $SD=0,74$). Adolescents who participated in this research seem to imply that the more highly educated the fathers are, the better they support their children through reciprocal communication when making career decisions.

The means in all factors and for all levels of fathers' education are above 3,5 apart from the scale of emotional support for which the mean is below 2,5 for all level of fathers' educational level. The mean score over 3,5 implies that adolescents feel "much" support from their fathers in respect to the enhance them to get actively involved in career decision process and the encouragement they take from them through reciprocal communication and the chances they offer them through their own experiences (Parental active involvement). The lowest mean is observed in how they help them to perceive and deal effectively with their emotions (Emotional support).

Standard deviation is below 1 in all variables for all levels of fathers' education implying that adolescents share similar beliefs for the support they get from their fathers in correlation to their fathers' educational level.

4.1.1.c Predictors of career decision self-efficacy beliefs

A Multiple regression analysis (Table) was carried out to predict adolescents' self-efficacy beliefs based on adolescents' gender, parents' educational level, the school they attended and the four parental ways of support used to enhance adolescents' career decision self-efficacy beliefs. The analysis yielded a significant model, ($F(12,401)=461,976$, $p<.000$), explaining 93% of the variance in adolescents' self-efficacy beliefs ($R^2 = 0,933$). Gender ($b = 0,04$, $p < 0,05$), reciprocal communication ($b = 0,50$, $p < 0,001$), parental active involvement

($b = 0,51$, $p < 0,001$), and emotional support ($b = 0,04$, $p < 0,05$) were significant predictors in the model.

The analysis revealed that the predictors of career decision self-efficacy beliefs (Table 21) are largely adolescents' gender ($p = 0,01$), and three of the parental ways employed to enhance career decision self-efficacy beliefs are highly statistically significant, Reciprocal communication ($p = 0,00$), Parental active involvement ($p = 0,00$), and Emotional Support ($p = 0,01$). The strongest predictor was Parental active involvement ($B = 0,51$). Mothers' and fathers' educational level, the type of school the children attended and the factor of self-enhancement were not significant predictors in the model. R and R^2 are very high, almost 1 meaning that the variables which are statistically significant can predict to a high degree of self-efficacy beliefs.

Table 20: Regression analysis predicting self-efficacy beliefs

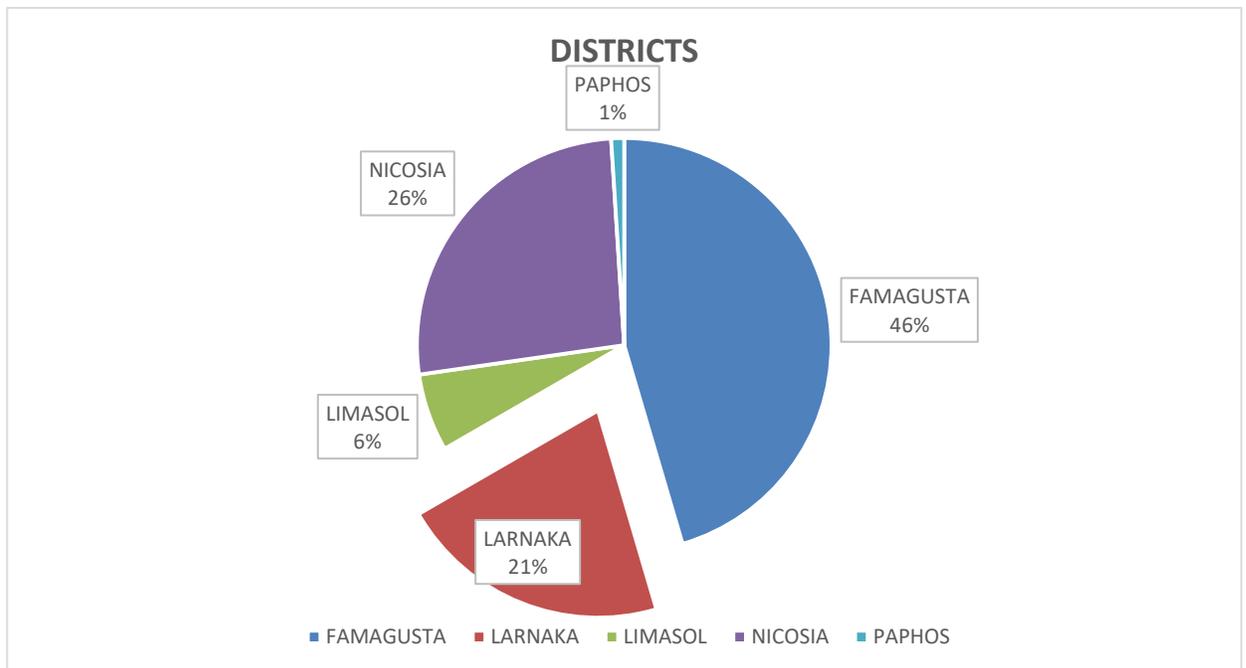
| Model | Standardized Coefficients B | T | P | F | P |
|--------------------------------------|-----------------------------------|-------|------|--------|------|
| (Constant) | | 2,39 | ,02 | | |
| Gender | ,04 | 2,56 | ,01* | | |
| School | -,01 | -,43 | ,66 | | |
| Secondary Education – Mothers | ,01 | ,88 | ,38 | | |
| Lyceum/Technical School – Mothers | ,01 | ,81 | ,42 | | |
| Higher Education – Mothers | ,02 | 1,19 | ,24 | | |
| Secondary Education – Fathers | -,01 | -,53 | ,60 | 461,98 | ,00* |
| Lyceum/Technical School – Fathers | ,02 | 1,07 | ,28 | | |
| Higher Education – Fathers | ,01 | ,38 | ,71 | | |
| Self-Enhancement | ,00 | ,02 | ,98 | | |
| Reciprocal Communication | ,50 | 24,98 | ,00* | | |
| Parental active involvement | ,51 | 25,10 | ,00* | | |
| Emotional support | ,04 | 2,74 | ,01* | | |

$R = ,966^a$ $R^2 = ,933$

4.1.2 Parents' Questionnaires

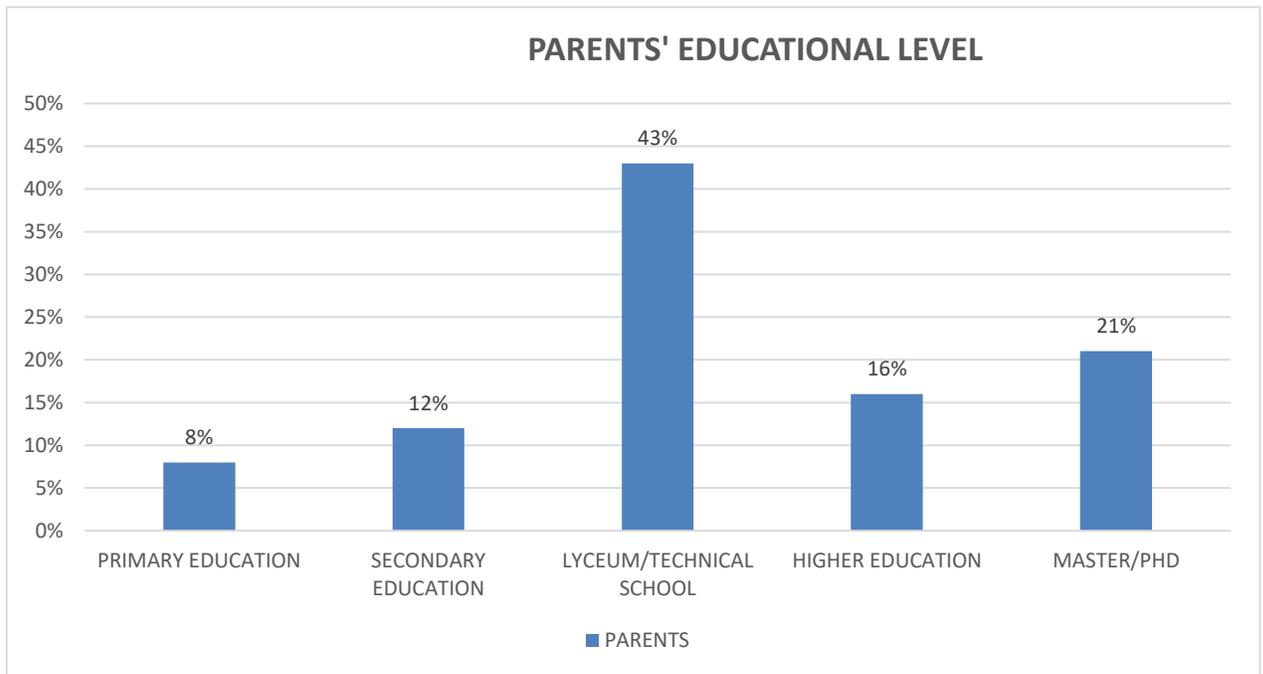
The parents who participated in the survey were the parents of some of the students, of the last grade of Lyceum or Technical School, who voluntarily, during their free time, participated in the specific research by answering the questionnaire. 59% of the parents were students' mothers and 41% of them were students' fathers. The sample of parents is distributed among all districts of the Republic of Cyprus as they are presented in chart 3 with only one parent from Paphos area. Although 137 parents answered the questionnaire only 128 answers were valid.

Figure 7: District of parents' residence



40% of the parents stated as living in the cities, 53% villages and 7% suburb areas. Parents of students attending lyceum were the majority 90%. The gender of their child is 42% boys and 58% girls. Participants were asked to state their highest educational level. Their answers are shown in chart 4.

Figure 8: Parents' Educational Level



4.1.2.a Part 1(a)

This subsection presents the parents' answers to the CDSES-SF by Betz et al. (1996). The questionnaire was designed as a self-report of individual's confidence in trying specific tasks related to the five career choice components suggested by Crites (1978) in order to measure career decision self-efficacy. These components include accurate self-appraisal, gathering occupational information, goal selection, making plans, and problem-solving. The parents were asked to indicate the degree they believe their child can accomplish each task or activity. The same Gaudron's (2011) four-factor model which was adopted for students was used for parents as well with the four variables that best described the competencies of career decision self-efficacy for the population of this study, a) goal selection, b) problem-solving, c) information gathering, and d) goal pursuit management. By administering an identical instrument to the parents as the one completed by the adolescents, the researcher can obtain both adolescents' and parents' perceptions on career decision self-efficacy.

The scale of the questionnaire ranged from the lowest degree with “No at all” (1) to the highest degree with “Completely” (5). Descriptive statistics, including means and standard deviations for each variable/factor and for the total of parents’ perception of their children’s career decision self-efficacy beliefs are summarized in Table 12. Parents showed high means in all variables ranging from 3,69 (problem-solving) to 3,85 (information gathering). The total mean score for CDSE is 3,79.

Table 21: Means and Standard Deviations for parent reported CDSE variables and total mean score (N=128)

| | Mean | SD |
|-------------------------|------|-----|
| Goal Selection | 3,82 | ,77 |
| Problem-solving | 3,69 | ,79 |
| Information Gathering | 3,85 | ,73 |
| Goal Pursuit Management | 3,77 | ,81 |
| CDSE_Mean_parent TOTAL | 3,79 | ,69 |

Responses ranged from “Not at all” (1) to “Completely” (5)

Means for all variables are closer to 4,00 showing that parents consider that their children feel much confidence in tasks involved in goal selection, problem-solving, information gathering and goal pursuit management. Interestingly, for both parents and adolescents, the scale problem-solving showed the lowest means in comparison to the other scales (Means = 3,69 and 3,39 for parents and adolescents respectively).

Besides, the standard deviation for all variables shows that participants’ answers do not vary much from the mean. Distributions of all variables including the total are lower than 1 therefore are low variance.

Independent samples t-tests were conducted to compare parents' beliefs regarding their children's self-efficacy abilities and to reveal whether there was any significant difference between mothers' and fathers' perception with regards to the four variables of self-efficacy beliefs (Table 23). The analysis showed that there was no significant difference between fathers' (*Mean* = 3,76, *SD* =0,71) and mothers' (*Mean* = 3,80, *SD* =0,69) perceptions of their children's total self-efficacy beliefs as well as for each of the four factors. It is noticeable, nevertheless, that both parents, fathers (*Mean* = 3,66, *SD* = 0,76, *T* = -0,20, *p* =*n.s.*) and mothers (*Mean* = 3,69, *SD* =0,83, *T*=-0,20, *p* =*n.s.*) consider problem-solving as the skill that their children have less confidence compared to the other components of self-efficacy. On the contrary, information gathering is the variable with the highest mean. It is also important to notice that the mean scores for all variables, apart from problem solving, are over 3,5 and very close to 4,00 ("Much").

Table 22: Independent samples t-tests between fathers' (N= 49) and mothers' (N=73) on self-efficacy factors. Some parents did not state whether they were mothers or fathers (N=6)

| | Gender/parent | Mean | SD | T | P |
|-------------------------|---------------|------|-----|------|-----|
| Goal Selection | Father | 3,81 | ,72 | ,09 | ,28 |
| | Mother | 3,80 | ,80 | | |
| Problem-solving | Father | 3,66 | ,77 | -,20 | ,49 |
| | Mother | 3,69 | ,83 | | |
| Information Gathering | Father | 3,80 | ,83 | -,65 | ,27 |
| | Mother | 3,89 | ,68 | | |
| Goal Pursuit Management | Father | 3,73 | ,81 | -,45 | ,83 |
| | Mother | 3,80 | ,82 | | |
| CDSE_Mean_parent | Father | 3,76 | ,71 | -,32 | ,73 |
| | Mother | 3,80 | ,69 | | |

T-tests for independent samples also compared parents' perceptions of their children's confidence according to the child's gender (Table 24). The analysis showed that there was no significant difference between boys' (*Mean* = 3,76, *SD* = 0,74) and girls' (*Mean* = 3,83,

$SD = 0,67$) in the total self-efficacy beliefs and on the four factors of the competencies of self-efficacy from the parents' perception. It is noticeable, however, that parents consider both genders, boys ($Mean = 3,68, SD = 0,76$) and girls ($Mean = 3,68, SD = 0,84$) less confident for problem-solving skills, compared to the other factors, although the means for both genders for the specific variable are above 3,5 and closer to 4,00 which is also considered high and shows much confidence. Parents consider girls to feel more confident in information gathering skills ($Mean = 3,93, SD = 0,68$) in comparison to the other factors while for boys, parents believe they are more confident in goal selection skills ($Mean = 3,86, SD = 0,75$).

Standard deviation is below 1, for all variables and the total score, meaning that participants' answers have low variance. This can imply that parents who participated in this research share similar perceptions of their children confidence in career decision skills.

Table 23: Independent samples t-tests between boys' (N= 53) and girls (N=70) on self-efficacy factors (parental reports). Some parents did not state their child's gender (N=5)

| | Gender/child | Mean | SD | t | P |
|-------------------------|--------------|------|-----|-------|-----|
| Goal Selection | Boy | 3,86 | ,75 | ,49 | ,83 |
| | Girl | 3,79 | ,79 | | |
| Problem-solving | Boy | 3,68 | ,76 | ,03 | ,60 |
| | Girl | 3,68 | ,84 | | |
| Information Gathering | Boy | 3,77 | ,81 | -1,23 | ,24 |
| | Girl | 3,93 | ,68 | | |
| Goal Pursuit Management | Boy | 3,72 | ,87 | -,77 | ,37 |
| | Girl | 3,84 | ,77 | | |
| CDSE_Mean_parent | Boy | 3,76 | ,74 | 1,22 | ,83 |
| | Girl | 3,83 | ,67 | | |

Parents' educational level was another independent variable which was tested by conducting one-way ANOVA to reveal any possible significant difference for the mean scores of career decision self-efficacy skills across the five parental educational levels (Table

25). The analysis did not reveal any statistically significant difference among the five different parents' educational levels. Nevertheless, it is worth noticing some of the scores. The means in all variables and for all levels of parents' education range from 3,69 to 4,04 with the exception of problem-solving in parents with primary and secondary education where the mean scores were 3,47 and 3,50 respectively.

The highest mean for all scales is observed for information gathering and for those parents who have completed primary education. The second highest mean for all scales is observed in goal selection for those adolescents whose parents have completed higher education. Standard deviation is below 1 in all variables for all levels of parents' education which implies that parents share the same beliefs for their children's career decision self-efficacy independently of their educational level.

Table 24: One-way ANOVAs between parents' Educational level and self-efficacy factors (parental reports)

| | | M | SD | F | P |
|-------------------------|-------------------------|------|-----|-----|-----|
| Goal Selection | Primary Education | 3,72 | ,90 | ,38 | ,82 |
| | Secondary Education | 3,70 | ,54 | | |
| | Lyceum/Technical school | 3,78 | ,75 | | |
| | Higher Education | 3,96 | ,77 | | |
| | Master/PhD | 3,88 | ,89 | | |
| | Total | 3,81 | ,77 | | |
| Problem-solving | Primary Education | 3,47 | ,89 | ,55 | ,70 |
| | Secondary Education | 3,50 | ,85 | | |
| | Lyceum/Technical school | 3,72 | ,79 | | |
| | Higher Education | 3,80 | ,83 | | |
| | Master/PhD | 3,74 | ,76 | | |
| | Total | 3,69 | ,80 | | |
| Information Gathering | Primary Education | 4,04 | ,65 | ,28 | ,89 |
| | Secondary Education | 3,80 | ,55 | | |
| | Lyceum/Technical school | 3,85 | ,72 | | |
| | Higher Education | 3,75 | ,94 | | |
| | Master/PhD | 3,89 | ,78 | | |
| | Total | 3,85 | ,74 | | |
| Goal Pursuit Management | Primary Education | 3,84 | ,83 | ,40 | ,81 |
| | Secondary Education | 3,68 | ,62 | | |
| | Lyceum/Technical school | 3,70 | ,83 | | |
| | Higher Education | 3,81 | ,78 | | |
| | Master/PhD | 3,92 | ,93 | | |
| | Total | 3,77 | ,82 | | |
| CDSE_Mean_Parent | Primary Education | 3,80 | ,69 | ,25 | ,91 |
| | Secondary Education | 3,69 | ,48 | | |
| | Lyceum/Technical school | 3,75 | ,68 | | |
| | Higher Education | 3,83 | ,78 | | |
| | Master/PhD | 3,88 | ,79 | | |
| | Total | 3,79 | ,69 | | |

4.1.2.b Part 1(b)

This subsection presents parents' answers to the parental support questionnaire created by the researcher and it is identical to the one given to adolescents. The Exploratory Factor Analysis including both adolescents' and parents' answers to the questionnaire was conducted. All factors with eigenvalues greater than one were retained. The analysis identified four factors with 53,89% of the total variance explained. Some items were deleted though due to low communalities (<0.40) and cross loadings (items loading on two or more factors). Cronbach's Alpha (CA) Test was also conducted in order to review the internal consistency of questions that load onto the same factors. The original questionnaire had 10 items for each factor but after validation analysis the questionnaire ended up with 38 items loading for each factor as follows: a) self-enhancement (17 items), b) reciprocal communication (9 items), c) parental active involvement (7 items) and d) emotional support (5 items). The four factors chosen to describe best parental ways of support are related to the four sources of information which according to Bandura (1994) influence best career decision self-efficacy beliefs. Mastery experience, the individual's personal experiences; verbal persuasion, the influence of what others speaks to the individual; vicarious experience, the experiences that others have; and affective arousal, individual's emotional and physical state.

The participants were asked to state the degree to which they provide support to their children in order to enhance their career decision self-efficacy beliefs starting with the lowest degree with "Not at all (1)" and the highest degree with "Very Much (5)"

Descriptive statistics, including means and standard deviations for each derived factor and individual items are summarized in Table 26. As shown in table 26, parents reported the highest means in reciprocal communication ($Mean=4,20$) and emotional support

(*Mean=4,21*). Self-enhancement also exhibited high mean scores (*Mean=3,81*), but Parental active involvement had the lowest mean (*Mean=2,54*). Most of the items have means above 3,5 meaning that parents consider very important to support their children in all factors apart from “Parental active involvement”. This suggests that parents consider they offer “little” support to their children related to opportunities derived from parents’ personal experiences.

Table 25: Means and standard deviations of the four scales and individual items from the parent support questionnaire (N =138)

| | Mean | SD |
|---|-------------|------------|
| Self-Enhancement | 3,81 | ,67 |
| Encourage me to make plans for the future | 4,17 | ,90 |
| Provide chances to be informed about my final plans | 3,70 | 1,06 |
| Encourage me to consider many different educational and career options | 3,70 | 1,03 |
| Discuss with me about my expectations from selecting specific goals | 3,96 | ,94 |
| Show understanding in changing my decisions | 3,75 | ,99 |
| Encourage me to try new activities | 3,68 | 1,09 |
| Discuss with me about alternative choices | 3,63 | 1,06 |
| Talk to me about the steps involved in goal selection | 3,94 | ,98 |
| Encourage me to be involved in extracurricular activities | 3,75 | 1,08 |
| Lead me to select a goal that fits my interests | 3,76 | 1,12 |
| Give me the chance to contribute when the family has to solve a problem | 3,66 | 1,06 |
| Help me acknowledge the positives and negatives of my plans | 3,87 | ,94 |
| Discuss with me the possibility to change my future plans | 3,57 | 1,07 |
| Let me solve problems by my own | 2,85 | 1,21 |
| Talk to me about the steps in solving a problem | 4,14 | ,88 |
| Support me emotionally even when I am frustrated with problem-solving | 4,46 | ,83 |
| Ask what careers I am considering for my future | 4,22 | ,86 |
| Reciprocal Communication | 4,20 | ,73 |
| Encourage me to make my own decision | 4,36 | ,90 |
| Tell me they are proud of me | 4,28 | ,94 |

| | | |
|---|-------------|------------|
| Treat my mistakes as learning experiences | 4,04 | ,89 |
| Spend time with me to discuss one to one | 4,05 | ,92 |
| Really try to understand my feelings | 4,30 | ,87 |
| Emphasize my strengths | 4,33 | ,86 |
| Support me to acquire social skills | 4,20 | ,96 |
| Really try to understand my way of thinking | 3,98 | ,92 |
| Help me feel better when I am worried/stressed or concerned about | 4,22 | ,87 |
| Parental active involvement | 2,54 | ,86 |
| Push me to a career direction reflective of their interests than mine | 1,72 | 1,15 |
| Insist on them selecting a goal for me | 1,54 | ,97 |
| Participate with me in structured exhibitions/workshops/lectures regarding career | 2,72 | 1,27 |
| Have specific career traditions | 2,43 | 1,23 |
| Offer to me new career experiences | 3,17 | 1,26 |
| Discuss with me the results of career tests | 3,11 | 1,38 |
| Encourage me to take career tests | 3,07 | 1,36 |
| Emotional Support | 4,21 | ,70 |
| Respect my future plans | 4,40 | ,81 |
| Trust me | 4,46 | ,86 |
| Promise to support economically for my future plans | 4,09 | 1,02 |
| Encourage me to make my own decisions | 4,22 | ,87 |
| Negotiate various solutions to a problem that I face | 3,86 | ,95 |

The highest mean is observed in “Emotional support” implying that the participants in this research feel that they offer emotional support to their children to enhance them positively in their everyday functioning but in difficult situations as well. The highest means are observed for the items “Trust me” ($Mean=4,46$, $SD=0,86$), “Support me emotionally even when I am frustrated with problem-solving” ($Mean=4,46$, $SD=0,83$) and “Respect my future plans” ($Mean=4,40$, $SD=0,81$).

The standard deviation for the four factors is below 1 which means that parents' answers have low variance. This observation is possible to explain when the analysis tested the role of the independent variables and their significance for the parental support.

Independent samples t-tests and one-way ANOVA were conducted to find out whether parental support (parental reported) was differentiated according to parents' gender, child's gender and parent's educational level.

Table 26: Independent samples t-tests between fathers (N= 55) and mothers (N=77) on the four derived factors from the parental support questionnaire (parent reported). Some did not state whether they were mothers of fathers (N=6)

| | Gender/parent | Mean | SD | T | P |
|-----------------------------|---------------|------|-----|-------|-----|
| Self-Enhancement | Father | 3,73 | ,69 | -1,19 | ,24 |
| | Mother | 3,87 | ,66 | | |
| Reciprocal Communication | Father | 4,08 | ,84 | -1,38 | ,17 |
| | Mother | 4,26 | ,64 | | |
| Parental active involvement | Father | 2,56 | ,88 | ,34 | ,74 |
| | Mother | 2,51 | ,85 | | |
| Emotional Support | Father | 4,15 | ,78 | -,80 | ,43 |
| | Mother | 4,25 | ,65 | | |

An independent samples t-test was conducted to test the possibility of difference among mothers' and fathers' answers to the degree they feel they offer parental support with regards to the four factors of career decision self-efficacy (Table 27). The analysis showed that there was no significant difference between mothers' and fathers' answers for any of the factors. Both parents consider they support their children more, to develop and enhance career decision self-efficacy beliefs, through "Emotional Support" and "Reciprocal Communication" (means for both factors higher than 4,00). Strong support also appears to be provided through "Self-enhancement" (*Mean=over 3,5 "Much"*) but they claim they offer less support through "Parental active involvement" (means lower than 2,60).

Standard deviation is below 1, for all variables and the total score, meaning that participants' answers have low variance. It worth mentioning that the standard deviation for both mothers and fathers is low. This can imply that parents who participated in this research share similar feelings about the ways and the degree they offer support to their children and which of the four sources of information for career decision self-efficacy beliefs.

Table 27: Independent samples t-tests between boys (N= 55) and girls (N=78) on the four derived factors from the parental support questionnaire (parental reports). Some did not state their child's gender (N=5)

| | Gender/child | Mean | SD | T | P |
|-----------------------------|--------------|------|-----|-------|------|
| Self-enhancement | Boy | 3,80 | ,69 | -,10 | ,92 |
| | Girl | 3,81 | ,66 | | |
| Reciprocal Communication | Boy | 4,16 | ,78 | -,37 | ,71 |
| | Girl | 4,21 | ,71 | | |
| Parental active involvement | Boy | 2,74 | ,91 | 2,25 | ,03* |
| | Girl | 2,40 | ,81 | | |
| Emotional Support | Boy | 4,10 | ,75 | -1,53 | ,13 |
| | Girl | 4,28 | ,65 | | |

Independent samples t-tests were conducted to test the possibility of difference among adolescents' gender in the degree of parental support (for means see Table 28). The analysis showed that there was no statistically significant difference between boys and girls for the factors of "*Self-enhancement*", "*Reciprocal communication*" and "*Emotional Support*". Statistically significant difference was only found for "*Parental active involvement*" ($t= 2,25, p=0,03$) where girls had significantly lower means than boys (2,40 versus 2,74).

Standard deviation is below 1, for all variables and the total score, meaning that participants' answers have low variance.

One-way ANOVAS were conducted to reveal any possible significant difference between the mean scores of parental support across the five parental educational levels (Table 29). The analysis did not reveal any statistically significant difference among the five different parents' educational levels except from the factor of "Reciprocal Communication" ($F= 3,08, p=0,02$). Parents who have completed Lyceum/Technical school had significantly lower means ($Mean=3,99, SD=0,90$) than parents who have completed Higher Education ($Mean=4,54, SD=0,41$). The lower means for all levels of education for all levels of education is observed for "Parental active involvement" while the highest means are observed in "Reciprocal communication" ($Mean=4,19, SD=0,73$) and "Emotional support" ($Mean=4,21, SD=0,70$).

Standard deviation is below 1 in all variables for all levels of parents' education implying that parents use similar way of supporting their children's career decision self-efficacy.

Table 28: One-way ANOVAs between parents' Educational level and parental support (parental reports)

| | | Mean | SD | F | P |
|-----------------------------|-------------------------|------|------|------|------|
| Self-Enhancement | Primary Education | 3,78 | ,77 | 1,61 | ,18 |
| | Secondary Education | 3,68 | ,57 | | |
| | Lyceum/Technical school | 3,71 | ,71 | | |
| | Higher Education | 4,09 | ,58 | | |
| | Master/PhD | 3,93 | ,63 | | |
| | Total | 3,81 | ,67 | | |
| Reciprocal Communication | Primary Education | 4,13 | ,71 | 3,08 | ,02* |
| | Secondary Education | 4,17 | ,55 | | |
| | Lyceum/Technical school | 3,99 | ,90 | | |
| | Higher Education | 4,54 | ,41 | | |
| | Master/PhD | 4,40 | ,44 | | |
| | Total | 4,19 | ,73 | | |
| Parental active involvement | Primary Education | 2,59 | 1,15 | ,40 | ,81 |
| | Secondary Education | 2,63 | ,93 | | |
| | Lyceum/Technical school | 2,60 | ,81 | | |
| | Higher Education | 2,44 | ,84 | | |
| | Master/PhD | 2,40 | ,87 | | |
| | Total | 2,54 | ,86 | | |
| Emotional Support | Primary Education | 4,10 | ,83 | 2,36 | ,06 |
| | Secondary Education | 4,10 | ,57 | | |
| | Lyceum/Technical school | 4,06 | ,77 | | |
| | Higher Education | 4,51 | ,51 | | |
| | Master/PhD | 4,40 | ,58 | | |
| | Total | 4,21 | ,70 | | |

4.1.2.c Predictors of career decision self-efficacy beliefs

A Multiple Regression Analysis was carried out to predict adolescents' self-efficacy beliefs as perceived by their parents based on adolescents' and parents' gender, parents' educational level, and the four parental ways of support for career decision self-efficacy beliefs. The analysis yielded a significant model, $F(9,108)=8,166$, $p<.000$, explaining 41% of the variance in adolescents' self-efficacy beliefs ($R^2 = 0,405$). The individual predictors were examined further and indicated that Reciprocal communication ($b=0,39$, $T=3,28$, $p=0,001$) was the only statistically significant predictor in the model.

Adolescents' gender, parents' gender, parents' educational level, and three out of four parental ways of support employed to enhance career decision self-efficacy beliefs, Self-enhancement, External Impact, and Emotional Support are not statistically significant.

Table 29: Regression analysis predicting self-efficacy beliefs (parental reports)

| Model | Standardized Coefficients B | T | P | F | P |
|--|-----------------------------|------|-------|------|------|
| (Constant) | | 1,57 | ,12 | | |
| Self-enhancement | ,12 | ,88 | ,38 | | |
| Reciprocal communication parental active involvement | ,39 | 3,28 | ,001* | | |
| Emotional Support | ,13 | 1,39 | ,17 | | |
| Gender/child | ,15 | 1,22 | ,23 | | |
| Gender/parent | ,03 | ,43 | ,67 | 8,17 | ,00* |
| Secondary Education Lyceum/Technical School | -,00 | -,02 | ,98 | | |
| Higher Education | ,05 | ,69 | ,49 | | |
| | -,00 | -,04 | ,97 | | |
| | ,11 | 1,25 | ,21 | | |

R= ,636 R² =,405

4.2 Matching Sample

A matching sample was achieved because each adolescent had a code (a number which he/she randomly chose and wrote on the first page of the questionnaire) and gave that to their mother or father who answered the parents' questionnaire. Thus, a matching sample was created which match parent-student answers to the questionnaires without revealing the identity of the participants or any other personal identification. The matching sample achieved was 115 pairs of student-parent questionnaires but only 107 could be considered valid because some of them were not fully completed and two of the parents' questionnaires used the same code. The reason for having a matching sample was to test whether parental and child self-reports differed in the factors assessing career decision self-efficacy beliefs and parental support.

4.2.1 Adolescents' Career Decision Self-Efficacy Beliefs

Self-efficacy beliefs were investigated both from the adolescents' report of the degree of their confidence to perform specific tasks and activities, and from the parents' view of their children' ability to perform the tasks. Similarly, adolescents were asked to indicate the degree to which they feel their parents provide support to them for the specific items used in the questionnaire and parents to state the degree to which they feel they provide support to their child. Paired-sample t-test were conducted (Table 30) to compare career decision self-efficacy beliefs for each one of the four factors from adolescents' view and for each one of the four factors from parents' view.

There was no significant difference in the mean scores for Goal selection – adolescent ($Mean=3,77, SD=0,77$) and Goal Selection – Parent ($Mean=3,86, SD=0,77$). Likewise, there was also no significant difference in the mean scores for Information Gathering – adolescent ($Mean=3,85, SD=0,63$) and Information Gathering – Parent ($Mean=3,90, SD=0,66$). There was also no significant difference in the mean scores for Goal Pursuit Management – adolescent ($Mean=3,68, SD=0,77$) and Goal Pursuit Management – Parent ($Mean=3,83, SD=0,79$). These results suggest that parents' perception of their children's Goal Selection Skills, Gathering Information Skills and Goal Pursuit Management skills do not differ from their children's perception.

On the contrary, there was a significant difference in the scores for Problem-solving – adolescent ($Mean=3,44, SD=0,86$) and Problem-solving – Parent ($Mean=3,70, SD=0,79$). These results suggest that parents' perception of their children's problem-solving skills differ significantly from their children's perception. Parents believe to a higher degree than their children that their children have the abilities to perform tasks and activities related to problem-solving. Regarding the total score of career decision self-efficacy beliefs, there was

no significant difference in the scores for Total score CDSE – adolescent ($Mean=3,71$, $SD=0,63$) and Total Score CDSE – Parent ($Mean=3,84$, $SD=0,65$). These results suggest that parents’ perception of their children’s total score of self-efficacy beliefs do not differ from their children’s perception.

Table 30: Paired samples t-tests examining differences in adolescents’ and parents’ reports (n = 107) on career decision self-efficacy beliefs

| | | Mean | SD | T | P |
|--------|--------------------------------------|------|-----|-------|------|
| Pair 1 | Goal Selection – Adolescent | 3,77 | ,77 | -1,12 | ,27 |
| | Goal Selection – Parent | 3,86 | ,77 | | |
| Pair 2 | Problem-solving – Adolescent | 3,44 | ,86 | -2,72 | ,01* |
| | Problem-solving – Parent | 3,70 | ,79 | | |
| Pair 3 | Information Gathering-Adolescent | 3,85 | ,63 | -,85 | ,40 |
| | Information Gathering – Parent | 3,90 | ,66 | | |
| Pair 4 | Goal Pursuit Management – Adolescent | 3,68 | ,77 | -1,73 | ,09 |
| | Goal Pursuit Management – Parent | 3,83 | ,79 | | |
| Pair 5 | Total Score CDSE – Adolescent | 3,71 | ,63 | -1,92 | ,06 |
| | Total Score CDSE – Parent | 3,84 | ,66 | | |

Table 32 presents the bivariate correlations between parents’ and adolescents’ reports for each of the factors. Associations of positive moderate strength ranging from $r = 0,366$ to $r = 0,393$ were found for the factors ‘Goal Selection’, ‘Information Gathering’, ‘Goal Pursuit Management’ and for total CDSE score. For ‘Problem-solving’, the strength of association was low. The associations were all significant.

Table 31: Paired Sample correlations between adolescents' and parents' reports (N = 107) on career decision self-efficacy beliefs

| | | Correlation | P |
|--------|--------------------------------------|-------------|------|
| Pair 1 | Goal Selection – Adolescent | ,393 | ,00* |
| | Goal Selection – Parent | | |
| Pair 2 | Problem-solving – Adolescent | ,193 | ,04* |
| | Problem-solving – Parent | | |
| Pair 3 | Information Gathering-Adolescent | ,372 | ,00* |
| | Information Gathering – Parent | | |
| Pair 4 | Goal Pursuit Management – Adolescent | ,366 | ,00* |
| | Goal Pursuit Management – Parent | | |
| Pair 5 | Total Score CDSE – Adolescent | ,388 | ,00* |
| | Total Score CDSE – Parent | | |

Paired sample correlations revealed that parents' and adolescents' answers for all competencies and the total score of career decision self-efficacy beliefs are statistically correlated between them, total score self-efficacy ($p=0,00$), goal selection ($p=0,00$), problem-solving ($p=0,04$), information gathering ($p=0,00$) and goal pursuit management ($p=0,00$). The correlation is moderate as it is very close to 0,4 apart from problem-solving which is low closer to 0,19.

4.2.2 Parental Support

Parental support was investigated both from the adolescents' report of the degree of the support they get from their parents, and from the parents' view of the support they provide to their children. Adolescents were asked to indicate the degree to which they feel their parents provide support to them for the specific items used in the questionnaire and parents to state the degree to which they feel they provide support as parents to their child. Paired-sample t-tests were conducted (Table 33-34) to compare each one of the four factors of

parental support from adolescents' view and for each one of the four factors from parents' view.

The analyses showed that there was a significant difference for all factors of parental support comparing students' and parents' perceptions. Adolescents reported significantly higher mean perceptions than parents on the factors "Self-Enhancement" and "Parental active involvement", while parents reported significantly higher mean perceptions than adolescents on the factors "Reciprocal Communication" and "Emotional Support". For means and for the results of the t-tests see table 33.

Table 32: Paired samples t-tests examining differences in adolescents' and parents' reports (N = 107) on parent support

| | | Mean | SD | T | P |
|--------|---|------|-----|--------|------|
| Pair 1 | Self-Enhancement – Adolescents | 4,00 | ,78 | 2,16 | ,03* |
| | Self-Enhancement – Parents | 3,83 | ,66 | | |
| Pair 2 | Reciprocal Communication – Adolescents | 3,64 | ,69 | -7,64 | ,00* |
| | Reciprocal Communication – Parents | 4,24 | ,65 | | |
| Pair 3 | Parental active involvement – Adolescents | 3,82 | ,71 | 14,89 | ,00* |
| | Parental active involvement – Parents | 2,42 | ,80 | | |
| Pair 4 | Emotional Support – Adolescents | 2,14 | ,73 | -23,68 | ,00* |
| | Emotional Support – Parents | 4,26 | ,65 | | |

Table 34 presents the bivariate correlations between parents' and adolescents' reports for each of the factors. Significant associations of moderate ($r = 0,337$) and small ($r = 0,212$) strength were observed for "Self-Enhancement" and "Reciprocal Communication" respectively. The associations for "Parental active involvement" and "Emotional Support" were not significant.

Table 33: Paired Sample correlations between adolescents' and parents' reports (N = 107)

parental report

| | | Correlations | P |
|--------|--|--------------|------|
| Pair 1 | Self-Enhancement – Adolescents Self-Enhancement – Parents | ,337 | ,00* |
| Pair 2 | Reciprocal Communication – Adolescents Reciprocal Communication – Parents | ,212 | ,02* |
| Pair 3 | Parental active involvement – Adolescents Parental active involvement – Parents | ,113 | ,23 |
| Pair 4 | Emotional Support – Adolescents Emotional Support – Parents | ,026 | ,78 |

4.3 Summary

The purpose of this study was to measure adolescents' career decision self-efficacy beliefs from the adolescents' and their parents' perception and the influence of parental support in Cyprus. The independent variables of gender, the type of school and the parents' educational levels, were tested to reveal any statistically significant differences for the dependent variables of self-efficacy beliefs and parental support. Besides, a multiple regression analysis was carried out to predict adolescents' self-efficacy beliefs as perceived by their parents based on adolescents' and parents' gender, parents' educational level, and the four sources of information for self-efficacy. Finally, self-efficacy beliefs were investigated both from the adolescents' report of the degree of their confidence to perform specific tasks and activities and from the parents' view of their children' ability to perform the tasks. Similarly, adolescents were asked to indicate the degree to which they feel their parents provide support to them for the specific items used in the questionnaire and parents to state the degree to which they feel it is important as parents to give support to their child. A summary of the results, based on the research questions, is presented in table 34.

Both adolescents and parents showed high means in all variables of career decision self-efficacy beliefs ranging above 3,50. The highest means for both groups of participants were observed for information gathering and the lowest for problem-solving. The total mean scores for CDSE were above 3,50 as well. The mean scores from parents' questionnaires were higher than those from the adolescents' in all factors and the total score. Parents' and adolescents' perception of CDSE seemed to be similar, and this is shown as well by the paired samples t-tests conducted for the matching sample in order to examine any differences in adolescents' and parents' reports. The results revealed that the associations were all significant, apart from problem-solving, for all factors and the total score of self-efficacy beliefs.

Analyses were conducted to investigate for adolescents and parents the possibility of any statistically significant difference between genders, the type of school students attend or among their parents' educational level. No statistically significant difference was observed for any independent variable for both groups of participants. Adolescents and their parents agreed that for both boys and girls, the highest mean is observed for information gathering and the lowest for problem-solving. Similarly, mothers scored information gathering as the highest factor and problem-solving the lowest, while fathers reported goal selection the highest, but they also agreed that the lowest is problem-solving. Besides, irrespective of parents' educational level and students' type of school, both groups of participants considered problem-solving to have the lowest mean scores.

In contrast to the parents' and adolescents' similar perceptions for career decision self-efficacy beliefs, parental support seems to be perceived or interpreted differently by the participants. All adolescents participating in this research claimed that they are very satisfied with the support they receive from their parents apart from one factor which has a very low

mean. The factor with the highest mean for adolescents is self-enhancement showing that they are very satisfied with the support they get from their parents by enhancing their active involvement in career-decision processes although the same factor is scored as the third highest for parents. Parents consider that they offer support to their children more by supporting them emotionally and teaching them how to deal with emotionally challenging situations. It is essential to notice that although for parents, emotional support has the highest mean score, for adolescents, it has the lowest. Parental active involvement is the second highest factor for adolescents while for parents, it bears the lowest mean score. Adolescents reported as the third-highest factor reciprocal communication, whereas for parents, the same factor is scored as the second-highest one. These differences are mirrored and verified by the t-tests conducted for the matching sample.

Paired samples t-tests were conducted to examine any differences in adolescents' and parents' perceptions of parental support. The analyses showed that there was a significant difference for all factors of parental support comparing students' and parents' perceptions. Adolescents reported significantly higher mean perceptions than parents on the factors of mastery experience and vicarious experience, while parents reported significantly higher mean perceptions than adolescents on the factors of reciprocal communication and emotional support. Regarding parental support and the four factors through which parents provide support, the independent variables of gender, the type of school adolescents attend, and parents' educational level were examined to reveal any possible significant differences. In contrast to self-efficacy beliefs where the independent variables showed no statistically significant differences, for parental support, all independent variables revealed significant differences.

For adolescents, gender differences were observed for two factors. Girls showed significantly higher mean scores than boys for self-enhancement but lower means for emotional support. According to parents' report, girls had significantly lower means than boys in parental active involvement. Parents' gender did not show any statistically significant difference regarding the four factors of parental support reporting agreement for the factors having the highest and lowest mean scorer. Both mothers and fathers agreed that reciprocal communication and emotional support had the highest mean and parental active involvement the lowest.

The type of school adolescents attended had a statistically significant difference for the factor of mastery experience with the students attending lyceum reporting more support than the students from the technical school.

Mother's educational level is statistically significant only for emotional support scale. The mean for adolescents whose mothers attended Higher Education is higher than the mean for the ones whose mothers completed Lyceum/Technical school and higher than the ones who only completed Primary Education. Regarding fathers' educational levels, the analysis revealed for the factor of *Reciprocal Communication* statistically significant difference among the three different fathers' educational levels, primary education bearing the lowest mean, Lyceum/Technical school having higher mean scores and Higher Education which has the highest mean from all levels. Statistically significant parents' education differences, from the parents' questionnaires, were also observed for the same factor of reciprocal communication among those who have completed Higher education having the highest means than those who have finished Lyceum or Technical school.

According to the adolescents' answers, the analysis revealed that the predictors of career decision self-efficacy beliefs are adolescents' gender, and three of the parental ways employed to enhance career decision self-efficacy are highly statistically significant: reciprocal communication, parental active involvement, and emotional support. The strongest predictor was the parental active involvement. Mothers' and fathers' educational level, the type of school the children attend, and the factor of self-enhancement were not significant predictors in the model. By contrast, for parents, reciprocal communication was the only statistically significant predictor in the model.

Summarizing the results, one could highlight that adolescents and their parents agreed on the level of self-efficacy beliefs, showing confidence in the variable of information gathering and less confidence in problem-solving, but they held different perceptions on the four sources of informing parental support. Adolescents consider that their career decision self-efficacy is most enhanced through active involvement in career decision and less through emotional support. By contrast, parents feel they support their children most through reciprocal communication and emotional support and less by self-enhancement.

The independent variables of gender, type of school and parents' educational level seems to be significant for parental support but have no significance for self-efficacy beliefs. Finally, both groups of participants agreed that reciprocal communication seems to predict self-efficacy beliefs highly. Adolescents also reported gender, parental active involvement and emotional support as significant predictors of parental support.

Table 34: Summary of results

| | RESEARCH QUESTIONS | DEPENDENT AND INDEPENDENT VARIABLES | ADOLESCENTS (N=454) | PARENTS (N=128) |
|---|--|---|--|---|
| CAREER DECISION SELF-EFFICACY | Which of the four variables are the most influential in shaping the career decision self-efficacy beliefs? | Information gathering | Highest mean (Mean=3,77) | Highest mean (Mean=3,85) |
| | | Goal selection | Over 3,5 (Mean=3,76) | Close to 4,00 (Mean=3,82) |
| | | Goal pursuit management | Over 3,5 (Mean=3,66) | Close to 4,00 (Mean=3,77) |
| | | Problem-solving | Lowest mean (Mean=3,39) | Lowest mean (Mean=3,69) |
| | | Total Self-efficacy beliefs | High – over 3,5 (Mean=3,67) | High–Close to 4,00 (Mean=3,79) |
| | The role of the independent variables in shaping career decision self-efficacy beliefs | Gender | p=n.s. | p=n.s. |
| | | Boys (N=201) Girls (N=213) Not specified (N=40) | <u>For both boys and girls:</u> Highest mean – Information gathering Lowest mean – Problem-solving | <u>For both boys and girls:</u> Highest mean – for girls Information gathering and for boys goal selection Lowest mean – Problem-solving p=n.s. |
| | | Type of school | p=n.s. | p=n.s. |
| | | Lyceum (N=386) Technical school (N=68) | <u>For both Lyceum and Technical school:</u> Lowest mean – Problem-solving | <u>For both mothers and fathers:</u> Highest mean –for mothers Information gathering and for fathers goal selection Lowest mean – Problem-solving |
| | | Mothers' educational level | p=n.s. | p=n.s. |
| Primary Education (N=26) Secondary Education (N=47) Lyceum/Technical school (N=154) Higher education (N=186) Not specified (N=41) | <u>For all levels of mothers' education:</u> Lowest mean – Problem-solving | <u>For all levels of parents' education:</u> Lowest mean – Problem-solving | | |
| Fathers' educational level | p=n.s. | p=n.s. | | |
| Primary Education (N=37) Secondary Education (N=44) Lyceum/Technical school (N=192) Higher education (N=137) Not specified (N=44) | <u>For all levels of fathers' education:</u> Lowest mean – Problem-solving | | | |

| | RESEARCH QUESTIONS | DEPENDENT AND INDEPENDENT VARIABLES | ADOLESCENTS (N=454) | PARENTS (N=128) |
|-------------------------|--|--|--|---|
| PARENTAL SUPPORT | Which ways parents use to enhance career decision self-efficacy beliefs are most influential in shaping the career decision self-efficacy beliefs? | Self-enhancement | Highest mean (Mean=3,81) | Third highest mean (Mean=3,81) |
| | | Reciprocal Communication | Third highest mean (Mean=3,63) | Second highest mean (Mean=4,20) |
| | | Parental active involvement | Second highest mean (Mean=3,79) | Lowest mean (Mean=2,54) |
| | | Emotional support | Lowest mean (Mean=2,29) | Highest mean (Mean=4,21) |
| | The role of the independent variables in the provision of parental support | Gender Boys (N=201) Girls (N=213) Not specified (N=40) | Statistically significant gender differences for: Self-enhancement (p<0,05) - for boys (Mean=3,74) and girls (Mean=3,91) Emotional support (p<0.001) - for boys (Mean=2,46) and girls (Mean=2,21) | Statistically significant gender differences for: <u>For both boys and girls for:</u> Parental active involvement (t = 2,25, p=0,03) - girls had significantly lower means than boys (2,40 versus 2,74) p=n.s. |
| | | Type of school Lyceum (N=386) Technical school (N=68) | Statistically significant type of school differences for: Self-enhancement (p<0,05) Lyceum (Mean=3,85) Technical school (Mean=3,61) | <u>For both mothers and fathers:</u> Highest mean for both – reciprocal communication and Emotional support Lowest mean for both– Parental active involvement |
| | | Mothers' educational level Primary Education (N=26) Secondary Education (N=47) Lyceum/Technical school (N=154) Higher education (N=186) Not specified (N=41) | Statistically significant mothers' education differences for: Emotional support (p<0.01) Higher education (Mean=2,49) Lyceum/Technical (Mean=2,24) Primary education (Mean=2,07) | Statistically significant parents' education differences for: Reciprocal communication (F= 3,08, p=0,02) Higher education (Mean=4,54) Lyceum/Technical (Mean=3,99) |
| | | Fathers educational level Primary Education (N=37) Secondary Education (N=44) Lyceum/Technical school (N=192) Higher education (N=137) Not specified (N=44) | Statistically significant fathers' education differences for: Emotional support (p<0,05) Primary education (Mean=3,30) Lyceum/Technical (Mean=3,66) Higher education (Mean=3,69) | |

| | RESEARCH QUESTIONS | DEPENDENT AND INDEPENDENT VARIABLES | ADOLESCENTS (N=107) | PARENTS (N=107) |
|----------------------------|---|---|---|---|
| | Which parental ways employed to enhance career decision self-efficacy beliefs predict adolescents' career decision self-efficacy beliefs? | <p>Dependent variable: Parental ways to enhance career decision self-efficacy beliefs</p> <p>Independent variable: Gender, type of school, parents' educational level</p> | <p>Predictors of self-efficacy: Gender (b = 0,04, p <0.05) Reciprocal communication (b = 0,50, p<0.001) Parental active involvement (b = 0,51, p<0,001) and Emotional support (b = 0,04, p<0.05)</p> | <p>Predictor of self-efficacy: Reciprocal Communication (b = 0,39, p=0,001)</p> |
| MATCHING SAMPLE (N=107) | Significant difference of the perception of adolescents' career decision self-efficacy beliefs | Correlations between parents' and adolescents' reports for the four factors of career decision self-efficacy beliefs | <p>Associations of positive moderate strength ranging from r = 0,366 to r = 0,393 were found for the factors:</p> <p>Goal Selection, Information Gathering. Goal Pursuit Management and for total CDSE score.</p> | |
| | Significant difference of the perception of parental support | Correlations between parents' and adolescents' reports for the four factors of ways employed to enhance career decision self-efficacy beliefs | <p>Adolescents reported significantly higher mean perceptions than parents on the factors:</p> <p>Self-enhancement and Parental active involvement</p> | <p>Parents reported significantly higher mean perceptions than adolescents on the factors:</p> <p>Reciprocal communication and Emotional support</p> |

5. DISCUSSION

In this chapter, the results related to the research questions are discussed. Specifically, adolescents' and parents' perceptions of self-efficacy are discussed in terms of the four competencies of career decision self-efficacy beliefs, namely, goal selection, information gathering, problem-solving and goal pursuit management. Regarding parental support, the discussion focuses on the four parental ways employed to enhance career decision self-efficacy beliefs in order to support their children, namely, self-enhancement, reciprocal communication, parental active involvement and emotional support exploring the participants' perceptions. Both components, career decision self-efficacy beliefs and parental support are viewed in terms of the influence they are subjected to by the independent variables of gender, type of school and parents' educational level. Then, the discussion concentrates on the possible predictors of self-efficacy beliefs by the four parental ways of enhancing adolescents' career decision self-efficacy beliefs or/and the independent variables for both groups of participants, adolescents and their parents. The results, derived from the matching sample, will also be discussed in order to compare between the perception of the two different groups participating in the survey: parents' and adolescents' perceptions on the primary components of this study - career decision self-efficacy beliefs and parental support. The discussion chapter attempts to reveal whether the existing theory and research support the results of this study. Implications concerning counselling relevant to the results will also be critically discussed. Two theories primarily inform the discussion, SCT (Bandura, 1986b) and SCCT (Lent et al., 1994) which constitute the theoretical framework of this study.

The discussion chapter is divided into three primary sections highlighting the central arguments of the study: a) career decision self-efficacy beliefs are high, b) parental support has an influence on self-efficacy beliefs of adolescents in Cyprus, and c) parental understanding of the support they are providing and young people's understanding of the support they are receiving is not aligned

The first two sections discuss the results from the adolescents' and parents' perceptions highlighting similarities and differences. The independent variables of gender, the type of school and parents' educational level are discussed separately: in terms of their significance in shaping self-efficacy beliefs in the first section, and their influence on parental support in the second section. The third section highlights the different perception of parents and children regarding parental support. In addition to discussing the results, some suggestions are reported, considering interventions which could be made by school counsellors for improving the support to adolescents regarding career decision.

5.1 Career decision self-efficacy beliefs are high

Adolescents in Cyprus who participated in this study reported much confidence in performing tasks related to career decision self-efficacy beliefs. The highest mean score is observed for information gathering (Mean=3,77), the second highest is goal selection (Mean=3,76), and the third - highest is goal pursuit management (Mean=3,66). The total score of self-efficacy beliefs (Mean=3,67) is also high. The lowest factor is problem-solving (Mean=3,39) which is lower than 3,5. Adolescents' parents also reported high means in all variables, ranging from 3,69 (problem-solving) to 3,85 (information gathering). The total mean score for CDSE is also ranged high to 3,79.

It is worth noting that parents' answers agreed with their children's ranking of the variables according to how confident they feel in the same order, as their children. Both claim that information gathering skills bear the highest means score but problem-solving the lowest. Means for all variables for both groups of participants are closer to 4,00, showing that both consider that adolescents feel much confidence in tasks involved in goal selection, information gathering and goal pursuit management. According to both adolescents' and parents' answers, problem-solving has the lowest mean scores of all variables.

These findings are consistent with previous research which supports that students report high self-efficacy beliefs (Bandura, 1986; Nicolaidou & Philippou, 2003; Pappas & Kounenou, 2011) but their sense of efficacy diminishes when they are asked to focus on specific tasks like problem-solving (Nicolaidou & Philippou, 2003).

The creators of the CDSES-SF, Betz and Taylor (2012), suggested that scores should be interpreted relative to their prediction of approach versus avoidance behaviour. "High self-efficacy or confidence predicts approach behaviour, while low self-efficacy predicts avoidance behaviour" (Betz & Taylor, 2012, p.19). Betz and Taylor (2012) generally "recommend that scale scores of 3,5 or above (moderate to high confidence) be predictive of a willingness to approach or try the behaviour in question, while scores below 3 be interpreted as suggesting confidence inadequate for approach behaviour" (p.19). Adolescents who participated in this survey seem to adopt approach behaviour and show reasonable confidence and much comfort to try all tasks they were asked for each variable since three of the four factors had mean scores above the recommended score of 3,5. Their parents also reported to a high degree that their children have the confidence in approaching the tasks and not avoiding them. Adolescents' parents who participated in this survey seem to believe that their children

adopt approach behaviour and show good confidence and comfort to try all tasks described by each variable.

It is essential here to consider Bandura's (1986) claim that young students are generally overconfident about their abilities. They seem to overestimate their capability of achieving competencies of career decision self-efficacy beliefs, which is not always negative, as it increases effort and persistence, but it should be taken into consideration for intervention programs. The fact that adolescents' and parents' results showed a high degree of self-efficacy might also imply that they considered all four competencies of self-efficacy having a strong influence on their career decision self-efficacy beliefs. This statement is confirmed by Bandura (1994), who claimed that self-efficacy, by itself, is an essential construct for understanding career choice. The importance of self-efficacy beliefs is highlighted by a great deal of research (Bandura, 1997; Betz & Hackett, 1997; Lent et al., 1994; Bandura et al., 2001; O'Brien et al., 1999; Rotberg, Brown & Ware, 1987; Ahrens & O'Brien, 1996; Bores-Rangel, et al., 1990; Church, et al., 1992; Ali, McWhirter, & Chronister, 2005; Alliman-Brissett et al., 2004; Fan & Williams, 2010; Pastorelli, Caprara, Barbaranelli, Rola, Rozsa, & Bandura, 2001; Guan, et al., 2016; Turner & Lapan, 2002; Gushue, Scanlan, Pantzer, & Clarke, 2006; Gati, et al., 2019; Argyropoulou & Kaliris, 2018; Creed, Patton, and Prideaux, 2006).

Bandura considers self-efficacy beliefs, the judgement of one's capability, the key factor of human agency. Bandura's consideration means that self-efficacy beliefs influence how people behave, react, think, motivate themselves, and decide in their everyday functioning (Bandura, 1994). Adolescents in Cyprus, who participated in this research, seem to report having self-efficacy beliefs to a quite high degree which influence their behaviour. Adopting Bandura's (1994) theory about the processes through which self-efficacy beliefs

affect human's performance, one could argue that the adolescents' sample is expected to perform in a specific way which will be described below:

Initially, regarding cognitive processes, adolescents, who participated in this research, are expected to set high goals and be committed to them. They may also foresee success scenarios and show optimism for their action planning. The sample of adolescents is expected to show persistence in the face of difficulties and stressful situations but in a moderate way as they report less confidence in problem-solving. Furthermore, motivational processes are also affected positively by high self-efficacy beliefs. Regarding this process and according to the participants' claim of feeling much confidence in their everyday functioning, they are expected firstly to attribute any failure they experience to their insufficient effort. Secondly, they may anticipate possible outcomes from their future actions according to their options. Finally, participants are expected to expend much effort and persevere in the face of difficulties. As far as their confidence goes in exercising control over the thoughts that produced stress and depression, adolescents are expected to have reasonable control over these thoughts, since they report moderate self-efficacy in problem-solving. Finally, regarding the influence that self-efficacy has on selection processes, participants may readily undertake challenging activities and select activities and situations which they feel confident enough to handle.

Conclusively, the adolescents and their parents who participated in this research show high career decision self-efficacy beliefs in all four competencies of self-efficacy. This implies that adolescents feel confident enough to select career goals, manage the possible challenges, show optimism for their action planning and outcomes expected. They also seem to feel more confident in gathering information, which can be explained by the fact that youngsters today are familiar and have quick and easy access to information online.

Youngsters' use of internet is confirmed by the results of a recent survey conducted by the Statistical Service of Cyprus (CYSTAT (b), 2018) about the usage of Information and Communication Technologies (ICT) in 2018 by households and individuals. The results revealed that the 16-24 age group was observed to use the internet to an extremely high degree, with 99,3 % of them accessing it. The survey confirms that the percentage of households with access to a computer increases continuously year by year. 86,2% of the households in Cyprus had access to internet via a computer, either desktop, portable or handheld, according to the government agency dealing with statistics in Cyprus during the year of 2018 (CYSTAT (a), 2018). Concerning what users are doing when they are connected to the internet, the specific research results showed that the most popular activity for the 16-24 age group is searching for information about goods or services to a high percentage of 85,1%. For the specific age group, females are recorded to use ICT to a higher degree (99,6%) than males (99,2%) (CYSTAT (a), 2018).

Adolescents, on the other hand, showed they were less confident in problem-solving, which may imply that they may not show much persistence in the face of difficulties and stressful situations. According to the results showing high self-efficacy beliefs, the participants are expected to have extensive career options, prepare themselves educationally for different occupational careers and be able to pursue challenging careers (Bandura et al., 2001; O' Brien et al., 1999). During adolescents' development, such difficulties like problem-solving may be considered as a normal stage (Nota, Soresi & Zimmerman, 2004; Brown & Mann, 1991).

Although for parents, problem-solving is not a variable that is considered to have as low mean score as adolescents claim, this variable bears the lowest mean in parents' answers as well. However, parents stated that they consider their children, to a high degree (closer to

“Much”), able to accomplish tasks involved in problem-solving skills. This kind of different perception is verified by the literature (Hornby & Lafaele, 2011) related to the different perception of self-efficacy by parents and children. This difference in perception of children’s ability to perform tasks related to problem-solving may imply that parents consider their children abler than children consider themselves in solving problems. Another implication may be that the parents may feel that this a normal stage of adolescence and may not consider it as a problem (Nota, Soresi & Zimmerman 2004).

Parents’ and adolescents’ perception of CDSE, as discussed above, are also verified by the paired samples t-tests conducted for the matching sample in order to examine any differences in adolescents’ and parents’ reports. Paired sample correlations revealed that parents’ and adolescents’ answers for all competencies and the total score of career decision self-efficacy beliefs are statistically correlated between them: total score self-efficacy ($p=0,00$), goal selection ($p=0,00$), problem-solving ($p=0,04$), information gathering ($p=0,00$) and goal pursuit management ($p=0,00$). The correlation is moderate as it is very close to 0,4 apart from problem-solving, which is low, closer to 0,19. The results revealed that the associations were all positive for all factors and for the total score of self-efficacy beliefs, apart from problem-solving.

Specifically, the results revealed that there was not a significant difference in the scores for Goal selection, Information Gathering, Goal Pursuit Management and the total score of CDSE. These results suggest that parents’ perception of their children’s skills for selecting and managing goals, gathering information and self-efficacy beliefs do not differ from their children’s perception.

On the contrary, there was a significant difference in the scores for problem-solving. These results suggest that parents' perception of their children's Problem-Solving skills differ significantly from their children's perception. Parents believe to a higher degree than their children that they can perform tasks and activities related to problem-solving. No research was found in the literature to compare parents' and students' perceptions of students' self-efficacy beliefs.

The findings, firstly, revealed that adolescents in Cyprus show high career decision self-efficacy beliefs, and secondly verified other research which support that self-efficacy beliefs are very useful for understanding career choice and development (Johnson, 2019; Fatima, et al., 2017; Chan, 2018; Harlow & Bowman, 2016; Wright, 2017).

This is interesting to be seen in the view of Cyprus context and the economic situation on the island the last years. Making a career decision is becoming more challenging and demanding today (Storme & Celik, 2018; Gati, et al, 2019) especially taking into consideration that the island faced an economic crisis in 2013 when unemployment rate reached 36,2%, the highest in Europe among higher education graduates (MOECSY, 2018). Despite the crisis, Cyprus in 2014 held the second highest percentage of tertiary education in the EU, with 52.5%, compared to the other European countries which held 37.9% (EAC, 2015). Avgousti (2018) in his research supported that even during the economic crisis young people in Cyprus continue their studies and admissions in universities which made graduates transition from Higher Education to the labour market very difficult and poor at that time.

This recent experience in Cyprus is a very good example of the resilience adolescents experience relating to career decision self-efficacy beliefs and this could be explained taking into consideration the Cyprus context. People in Cyprus are referred to show high resilience

during political or economic crises on the island and have managed to survive with hard work and collective focus (Cyprus Profile, 2019). Research (Avgousti, 2018) and statistics (MOECSY, 2018; CYSTAT (a), 2018) supported that Cyprus young people prefer admission to higher education even when unemployment was high. In 2017, more than half of the Cypriots, aged 30-34 were graduates of Higher Education which overcomes the EU target of 46% (CYSTAT (a), 2018). This could be explained in various ways considering the Cyprus context: a) due to the great reputation Universities in Cyprus (public and private) has gained the last years (MOECSY, 2018); b) due to the Cypriot culture which considers higher education very important in order to achieve in life especially after the experience of the Turkish invasion when almost half of the Cypriot population lost their properties and became refugees and started investing more in educating their children since they were obliged to abandon the richest and most developed part of the island (COMPEDIUM, 2014), c) due to the fact that parents in Cypriot families support economically and emotionally their children for their studies (Avgousti, 2018); d) due to the fact that both public and private tertiary education in Cyprus are connected to labour market in the sense of developing fields of studies connected to the labour market needs but sometimes assuring employment for their graduates; and e) due to the fact that unemployment after the big crisis in 2013 is decreasing year by year and in January, 2019 fell to 7,3%.

5.1.1 Gender

About gender differences, the adolescents' and parents' results of this study affirm similar findings in the research that there are no gender differences (Fitzgerald, et al., 1995; Lapan, et al., 2000; Betz & Borgen, 2010; Pappas & Kounenou, 2011; Shin & Lee, 2018). In research, gender differences were reported only regarding traditional and non-traditional female occupations (Hackett & Betz, 1981; Hackett, Betz, Casas, & Rocha-Singh, 1992;

Chen, 2003; Lauver & Jones, 1991) and science self-efficacy beliefs where girls reported stronger science self-efficacy beliefs than boys (Britner & Pajares, 2006). Few gender differences for the self-efficacy scale and the variables were reported by the study of Betz et al. (1996) and Luzzo (1993). Some research (Shin, Lee, & Seo, 2019; Mau, Perkins, & Mau, 2016; Aurah, 2017) refers to gender differences. Shin et al.'s research found gender differences in terms of the direct relationship between implicit gender-career stereotyping and CDSE which was significant only for female students but this was supported to cultural and contextual factors since the research was conducted in South Korea with strong beliefs about traditional gender roles in accordance with Confucian and patriarchal atmosphere. The research by Mau et al. (2016), conducted among college students enrolled in STEM majors in the United States, showed also gender differences in decision-making self-efficacy. The results in Aurah's research (2017) among High School Students in Kenya indicated gender differences in both self-efficacy and academic achievement, with female students performing better than male students in both outcome variables.

In this research, although no statistically significant gender difference exists, it was found that boys claimed more confidence than girls in goal selection while girls reported more confidence in information gathering. Surprisingly, parents report the same by suggesting girls to feel more confident in information gathering skills in comparison to the other variables while for boys, parents believe they are more confident in goal selection skills.

This study does not support the findings of studies by Pappas and Kounenou (2011) and Gianako's (2001) that reported higher scores for females than males in CDSE-SF for goal selection. The findings of this research may imply that boys are brought up and accept more encouragement than girls in setting and selecting goals for their future regarding career options. Regarding information gathering, the results of the survey conducted by the

Statistical Service of Cyprus confirmed that, showing that females use ICT to a higher degree than boys (www.mof.gov.cy). Another finding which is worth noticing is that both genders showed lower confidence in problem-solving skills which may imply that participants face the same difficulties in problem-solving skills irrespective of their gender. Low confidence in problem-solving skills by both genders may also imply that the adolescents who participated in this research might avoid attempting situations in their career that are connected to problem-solving skills, like changing majors and finding alternatives if they do not like their first choice or change occupations etc.

The lack of statistically significant gender differences may imply that both males and females are homogenous regarding the kind of experiences they have, or they are offered in order to develop career decision self-efficacy beliefs (Betz et al., 2012). This may also imply that they are also homogeneous regarding the parental support they experience and that their parents do not differentiate their support depending on the gender of their child. The lack of difference may imply that parents do not believe gender differentiates children's confidence in approaching tasks related to a career decision making. Although there is no statistically significant difference between boys and girls in any variable or total, it is noticeable that parents consider both genders, boys and girls to be less confident for problem-solving skills, compared to the other variables. Despite this, the means score for both genders for the specific variable are above 3,5 and closer to 4 which is also considered high and shows much confidence.

For the parents' questionnaire, gender was also examined from the perspective of mothers' and fathers' perceptions of the concept of their children's self-efficacy beliefs. Fathers and mothers who participated in this research seemed to share the same beliefs regarding their children's career decision self-efficacy beliefs. There was no significant

difference between fathers' and mothers' perceptions of their children's self-efficacy beliefs and all variables. It is noticeable, nevertheless, that both parents, fathers and mothers consider problem-solving as the skill that their children have less confidence in attempting in comparison to the other components of self-efficacy. In contrast, information gathering is the variable that has the highest mean for them, showing that they consider their children very confident in finding occupational information. It is also important to notice that the mean scores for all variables, apart from problem solving, are over 3,5 and very close to 4 ("Much"). The lack of differences among fathers' and mothers' perceptions shows that they agree on the way they judge their children's confidence in approaching specific tasks related to a career decision.

To the best of my knowledge, no other research has investigated parents' perceptions of their children's career decision self-efficacy beliefs. Therefore, there could be no reference to verify or differentiate the results.

It is also worth noting that both parents and their children have similar means for each variable, the total of self-efficacy beliefs and the highest and lowest mean. The study aimed at offering results which would not depend on self-referent reports of either students or their parents but a recording of parents' and students' views on the same investigation. This was achieved by asking the parents to answer the same questionnaire, giving their perception of their children's career self-efficacy beliefs. The goal was achieved, and the results showed that parents' and adolescents' answers are similar implying that both parents and children share a similar optimistic assessment of adolescents' capabilities in performing the tasks related to the four competencies of career decision self-efficacy beliefs. The above contention is also presented in the paired t-tests, which showed that adolescents' answers were associated positively with parents' results. Another implication could be considered that

parents, independently of their gender, have a clear and in-depth knowledge of their children's abilities regarding their confidence in attempting tasks and activities related to the four competencies of career decision self-efficacy beliefs.

The uniqueness of this study lies in the fact that parents support this lack of gender differences and at the same time implies that parents do not differentiate their support according to their child's gender. Instead, they have the same perception, independently of the gender of their children's skills or abilities to accomplish tasks related to career choice.

5.1.2 Type of school

Students who attend Lyceum follow a more general academic orientation, with specializations that lead to a variety of field of studies which they choose during the last grade. Students attending STVE schools are more vocationally than academically oriented, having chosen their field of study according to their occupational choice. One may expect that STVE students would show higher career decision self-efficacy beliefs since they follow occupational directions, including both theoretical and practical studies with technical/workshop subjects. Technical and vocational education offers practical experience on the chosen occupation which may make students more confident in their career decision skills since they have already made their career choices and are prepared to enter the labour market directly. Therefore, one may have expected from this study to reveal statistically significant differences in career decision self-efficacy beliefs between the population of the different schools. Nevertheless, the participants' answers were identical for all variables and the total score of self-efficacy. To the best of my knowledge, no other research has investigated and compared students' self-efficacy beliefs in general and technical and vocational education. A few studies (Pihie, & Bagheri, 2011a, 2011b) investigated

entrepreneurial self-efficacy for technical school students, and the results showed, in both studies, that students perceived themselves as moderately high in entrepreneurial self-efficacy.

On the other hand, since STVE schools are considered to attract socially and educationally vulnerable young people (Molgat, Deschenaux, & LeBlanc, 2011), one may expect students attending STVE to show lower career decision self-efficacy beliefs. The results of this study revealed no difference, and this might be due to the vocational orientation of the STVE schools and the fact that students have already made their career choice.

Despite the non-statistically significant difference in any variable according to the type of school, it is worth noting that, as discussed before, the participants of both types of schools seem to feel less confident in attempting tasks involved in problem-solving. Therefore, intervention programs may need to address issues connected to problem-solving skills for students attending both types of schools.

5.1.3 Parents' educational level

The results, for both groups students and parents, did not reveal any statistically significant difference among the four different mothers' and fathers' educational levels, implying that parents' level of education does not differentiate students' career decision self-efficacy beliefs. Students and parents, independently of parents' educational level, consider that children have "much" confidence in accomplishing tasks to make career decisions. Previous research findings regarding parents' educational level and its correlation with career decision self-efficacy beliefs agreed that there is no effect (Kerpelman, Eryigit, & Stephens, 2008; Brown, & Mann, 1990). On the other hand, these results do not agree with the study by Pappas and Kounenou (2011) in which results revealed a significant statistical relationship

between the education level of mother and the career decision self-efficacy. Other studies, specifically, also revealed that mothers' educational level might predict problem-solving skills (Temper, & Fashbeck, 1982 in Scvaneveldt, & Adams, 1983). The reason why the results of this study did not reveal any differences regarding parents' educational level may be that parents in this study used other ways to enhance their children's self-efficacy by investing more in the communication with their children (Afifi & Olson, 2005; Davalos, et al., 2005; Jeynes, 2005, 2007), support them emotionally and spend time with them (Ratelle et al., 2005, in Ruholt et al., 2015). The lack of significant difference may also imply that children cultivate career decision self-efficacy skills independently from their parents' educational level. This may also imply that parents do their best, whatever their own level of education, to support their children and offer them the opportunities they need to cultivate the specific skills. Another interpretation is that adolescents today may have the chance to acquire or cultivate skills from other sources apart from their parents, for example, from their teachers at school and through internet use.

Although no statistical significance difference is revealed, it is worth noting some of the results. Parents' and students' answers agreed, and the means in all variables and for all levels of mothers' and father's education are above 3,5, apart from problem-solving, which implies that adolescents tend to avoid tasks necessary for problem-solving. They feel less confident in those skills, and their parents' educational level does not differentiate their confidence. From the parents' perception, problem-solving has the lowest mean scores for parents who have only completed primary and secondary education, while for the rest levels of education for the specific variable this is not the case. As problem-solving skills seem to create difficulties for this population, this should be taken into consideration by school

counsellors in planning interventions and by mothers who need to enhance their children's confidence in the tasks involved in problem-solving.

According to the adolescents' answers, the lower mean for all variables, regarding mother's educational level, is observed for those adolescents whose mothers have completed only primary education apart for the variable of information gathering. The fact that the variable of information gathering does not have lower mean, like the other variables, may imply that selecting information nowadays is not something that adolescents expect their parents to help or support them with. Therefore, their mothers' level of education does not count as much as in other variables. The lower mean for all variables, regarding fathers' education, is observed for those adolescents whose fathers have completed only primary education. Although the difference is not statistically significant, it is worth pointing out that adolescents who have well-educated fathers claim to be more confident in engaging in tasks to acquire skills necessary for a career decision.

The highest mean for all variables is observed for adolescents whose mothers have completed Lyceum/Technical school. This remark may imply that mothers with higher education can be more demanding, which may influence adolescents' confidence negatively if mothers' demand is considered by adolescents as an attempt to control their choices and actions (Schultheiss et al., 2001). Referring to fathers' education, the highest mean for all variables is observed for adolescents whose fathers have completed higher education in contrast to the fact that the highest mean for mothers was for Lyceum/Technical school. This remark may imply that mothers' and fathers' level of education has a different impact on adolescents' career decision self-efficacy beliefs. The highest mean is observed for adolescents whose fathers have higher education, whereas regarding mothers' educational

level, the highest mean is observed for adolescents whose mothers have completed Lyceum/ Technical school.

Adolescents whose fathers have only completed primary education showed lower confidence to become involved in tasks to select and pursuit goals. Adolescents' low mean scores for goal selection may imply that their fathers' example of not aiming for or achieving high goals negatively influences adolescents' career decision self-efficacy beliefs in selecting and pursuing goals.

According to the parents' answers, the highest mean for all variables is observed for parents who have completed primary education and the variable of information gathering. This remark may imply that parents with the lowest level of education consider their children more confident to commit by themselves to tasks which are related to gathering information. Another implication of this fact is that this specific population of parents, who have the lowest level of education, may lack the skill of using technology and internet. They may also feel that youngsters today are so fluent in this, therefore finding information would be an easy task to commit (CYSTAT (b), 2018).

The second highest mean for all variables, according to parents, is observed in goal selection for those adolescents whose parents have completed higher education. This finding may imply that parents, who have themselves achieved high goals, consider that they perform a good model for their children and offer them the experiences needed, so they consider their children to have much confidence to perform the tasks needed to select their goals. This is confirmed by Davis-Kean (2005) with his study confirmed that parents' educational achievements were positively related to their children's attainments which indirectly associated parent's expectations with children's outcomes.

Correlation studies (Bradley & Corwyn, 2002; McLoyd, 1990), which investigated parents' educational level and its influence on adolescents' achievements, uses parents' educational level usually as a quantification for the family socioeconomic status accompanied by family income and occupational status. Such studies assume that families with less education and less income might not be able to provide such funds for their children's cognitive development (e.g., by offering them opportunities for cultural experiences and travelling). Some studies (Mau & Bikos, 2000; Crockett & Bingham, 2000) suggested that both parents' education and income influence career aspirations. Previous studies (Wilson & Wilson, 1992; Hossler & Stage, 1992) indicated only parents' education as an influence. Schunk and Miller (2002) support that low self-efficacy for learning may be the result of low family income. Long before, Alexander, Entwisle, Blyth, & McAdoo (1988) suggested that family income is positively associated with parents' expectations for their children's success. Consequently, "parents convey their expectations to children directly (e.g., verbally) and indirectly (e.g., involving children in academic activities, assisting with homework), which in turn affects children's expectations (self-efficacy) for themselves" (Schunk & Meece, 2006, p.84-85). The results of this study do not coincide with the research, at least, those who claim positive relation between parents' socioeconomic status (including parents' educational level) and self-efficacy beliefs. This study does not, on the other hand, investigate the parents' educational level as a component of SES but as an independent variable by itself. Therefore, the results cannot be associated with previous research.

5.1.4 Predictors of career decision self-efficacy beliefs

The multiple regression analysis revealed that for adolescents the predictors of career decision self-efficacy beliefs are adolescents' gender, and three of the four parental ways of support the enhancement of career decision self-efficacy beliefs are highly statistically

significant: reciprocal communication, parental active involvement, and emotional support. On the contrary, for parents, the analysis revealed that only reciprocal communication could predict career decision self-efficacy beliefs. For parents, adolescents' gender, parents' gender, parents' educational level, and three of the parental ways employed to support, Self-enhancement, Parental active involvement, and Emotional support are not statistically significant. Therefore, they cannot predict self-efficacy beliefs. The findings from the adolescents' answers are consistent with studies (Kenny et al., 2003; Wall et al., 1999; McWhirter et al., 1998) which revealed that the level of social support (parents, family, peers, teacher) generally predicts career development.

Specifically, recent studies (Turner & Lapan, 2002; Gushue & Whitson, 2003; Restubog et al., 2010 Garcia et al., 2015; Hargrove et al., 2002; Guan et al., 2016; Keller, and Whiston, 2008; Nota, et al., 2007; Patton et al., 2004; Hampton P., 2005; Liang et al., 2020) supported the results of this study in that parental support positively predicts career decision self-efficacy. Turner and Lapan (2002) found that perceived parental support accounted for one third to almost one half of the total variance in vocational self-efficacy. This positive relationship between career self-efficacy and parental support illustrates the importance of career decision self-efficacy.

However, Zeldin and Pajares (1997) and Bandura (1994) claim that verbal persuasion closely related to the factor of reciprocal communication can play an essential role in one's self-beliefs which coincides with the findings of this research. Pajares (1997) stated, on the other hand, that this way of support is weaker than the support which derives from acquiring personal experiences through self-enhancement or learning from parents' personal experiences, but communication could enhance the active involvement of children in career decision processes to acquire personal experiences. Although, vicarious experience which is

related to parental active involvement that is learning from parents' personal involvement and experiences is not considered to be as influential as other sources in previous studies (Schunk & Meece, 2005), for adolescents in this research, it seems that it is statistically significant meaning that it is influential and can predict adolescents' self-efficacy beliefs. The results of this study coincide with literature regarding emotional support as well which can work as an energizing facilitator of performance. Therefore, it may predict behaviour related to career decision self-efficacy beliefs (Bandura, 1994; Pajares, 1997,2005). Regarding the role of acquiring personal experiences, the results of this study do not agree with the study by Britner and Pajares (2006) who investigated the sources of science self-efficacy beliefs where personal experiences was the only factor found to predict self-efficacy beliefs significantly.

The study revealed that adolescents in Cyprus feel confident to a high degree to try tasks and activities needed for career decisions. Their parents seem to share the same perception considering their children confident enough to make career choices. Gender, the type of school they attended, and parents' educational level do not influence their confidence. The adolescents who participated in this study seemed to derive their confidence more from their parent's support since three out of four sources of information of self-efficacy beliefs predict their career decision self-efficacy.

Nevertheless, parental support is perceived differently by the participants in this research and gender, the type of school and the level of parents' education differentiate to some extent, perceived parental support. Gender, reciprocal communication, parental active involvement and emotional support can predict self-efficacy beliefs.

5.2 Parental support has an influence on self-efficacy beliefs of adolescents in Cyprus

Both adolescents and parents who participated in this study verified the importance of parental support by showing high self-efficacy beliefs when answering the CDSE-SF, accompanied by a positive report on the perceived parental support. This is confirmed by the relevant literature in which parental support has been found to positively affect career development (Bandura, 1999; Otto, 2000; Lent et al., 1994, 2000, Turner & Lapan, 2002; Kniveton, 2004; Pappas & Kounenou, 2011; Garcia et al., 2012; Taylor, Harris, & Taylor, 2004; Ruholt, et al., 2015; Guan, et al., 2016; Wang, et al., 2019; Mao, et al., 2017; Retnam, et al., 2018; Liang, et al., 2020). This is also verified by regression analysis conducted for this study. This revealed that three out of four sources of informing career decision self-efficacy beliefs, used by parents to support their children's self-efficacy beliefs, predict career decision self-efficacy beliefs. Specifically, parental support shapes the way children perceive the appropriateness of career-related decisions (Astin, 1984), has a great influence on the adolescents' self-perception of academic and vocational competence (Eccles, 1994) and is offered through encouragement to achieve vocational goals (Young, 1994). Parental support facilitates adolescents' participation in career-related learning experiences (Turner & Lapan, 2002; Kenny et al., 2003).

The participants' view on parental support was investigated through the four parental ways of support through enhancing career decision self-efficacy beliefs, Self-enhancement, reciprocal communication, parental active involvement and emotional support.

All adolescents participating in this research claimed that they are very satisfied with the support they receive from their parents, since the mean scores for three factors ranged from 3,63 to 3,81. They prioritize first the enhancement they receive from their parents to

get actively involved in career decision process, secondly, the way their parents support them through reciprocal communication and thirdly the opportunities they offer them through parents' involvement and personal experiences. On the other hand, adolescents state lower satisfaction from the fourth factor (Mean=2,29), which refers to the way they support them emotionally. Although parents also claimed to be satisfied with the support they offered to their children, they reported a higher degree of parental support than children. Besides, they seem to rank factors in a different order of the degree of support. Parents ranked the first three factors from 3,81 to 4,21 starting, first, with the way they support them emotionally, secondly, the reciprocal communication, and thirdly the enhancement they offer them to get actively involved in career decision process. On the contrary, they feel they offer little support (Mean=2,54) for the fourth factor, which refers to the parental active involvement that is the support which may derive from parents' involvement and personal experiences. It is essential to highlight the different perceptions of parental support as perceived by the two groups of participants.

More specifically, the highest mean for adolescents is observed in "Self-enhancement". The fact that self-enhancement is ranged high is in line with Bandura's (1977) statement that that personal experiences is the most influential and useful source of information related to creating strong efficacy beliefs. Therefore, the adolescents who participated in this research considered that their parents most support their self-efficacy through the enhancement they offer them to get actively involved in the career decision process in order to achieve personal experiences. Other studies (Lent, et. al, 1991; Lopez, and Lent, 1992; Matsui et al., 1990; Lent, 2005) also supported that mastery experience, an individual's personal experiences, has the most potent influence on self-efficacy beliefs.

Regarding the items of the questionnaire, most of the items have means over 3,5 and closer to 4, meaning that the adolescents feel they have “much” support from their parents. The highest mean is observed for the items “*Support me emotionally even when I am frustrated with problem-solving*”, “*Help me acknowledge the positives and negatives of my plans*”, “*Encourage me to make plans for the future*”, “*Lead me to select a goal that fits my interests*” and “*Ask what careers I am considering for my future*”. These items seem to be the most important support items for this population, and all of them belong to self-enhancement factor. The above result could be considered very important since the participants’ answers may imply that personal experiences are important influences for adolescents’ self-efficacy beliefs. According to the way the items are worded, they also imply that parents’ support is perceived by students as: parents being emotionally present in times of need (Ratelle et al., 2005), permitting freedom of movement for exploration, and offering them opportunities for authentic personal experiences (Bandura, 1994).

Their parents, on the other hand, ranked self-enhancement as having the third- highest mean score, but to a high score closer to 4,00. Parents reported the highest mean in “Emotional Support” implying that they feel that they offer emotional support to their children. The highest means, above 4 (“Much”), among all the items of the questionnaire for parents is observed for the items: “*Trust me*”, “*Support me emotionally even when I am frustrated with problem-solving*” and “*Respect my future plans*”. All items belong to emotional support factor, meaning that parents consider that showing trust, respect and emotional support to their children may be the best ways to use to offer support to their children. On the contrary, the adolescents claim that they feel their parents support them “very little” ranking emotional support factor as the lowest one. The fact that parents and adolescents do not agree on which factor is the most important for parental support may have

implications related to the different way parents perceive parental support (Hornby, and Lafaele, 2011) and children's expectations regarding support. No research was traced in literature which referred to parents expressing their opinion on the way they offer support to their children. Previous research asked children what they thought of their parents' support but did not ask the parents themselves (Bandura, 1993; Turner & Lapan, 2002; Kerpelman, Eryigit, & Stephens, 2008).

The lowest mean for adolescents is observed in two of the items of "Parental active involvement" with very low means below 3, which shows that children claim that they have "Very little" support from their parents. The specific items are "Encourage me to take career tests" and "Participate with me in structured exhibitions/workshops/lectures regarding career". This finding is consistent with parents' answers who claim that they offer little support to their children regarding parental active involvement, ranking this factor as the last one with a mean score around 2,5. Parents' behaviour may be due to the way they perceive parental support (Hornby & Lafaele, 2011). They may either not get informed about career events or the career tests offered by the school. They may also feel that this is solely the school/counsellors' responsibility.

Adolescents who participated in this research reported that they receive much support from their parents through reciprocal communication and specifically positive persuasion, which also seems to increase their career decision self-efficacy beliefs (Zeldin & Pajares, 2000). The encouragement and empowerment they experience from their parents seem also to have a positive effect on their career efficiency. Parents agreed that they offered much support to their children regarding reciprocal communication, but they ranked it higher than their children and as more important than self-enhancement. They claim that reciprocal

communication is more important to them than offering opportunities for adolescent to get actively involved in career decision process and gain personal experiences.

The most critical finding when comparing students' and parents' reports is that parents claim that they support their children emotionally ranking it as the first factor they use to offer support. However, it seems that they are not very able to achieve that successfully since adolescents do not feel they have enough support on this factor, ranking it as the last factor regarding perceived support.

The above findings are also presented by the results of the paired t-test conducted for the matching sample, which revealed that there was a significant difference for all factors of parental support when comparing students' and parents' perceptions. Adolescents reported significantly higher mean perceptions than parents on the factors 'Self-enhancement' and "Parental active involvement", while parents reported significantly higher mean perceptions than adolescents on the factors 'Reciprocal Communication' and 'Emotional support'. Paired sample correlations revealed that parents' and adolescents' answers for two sources of information of career decision self-efficacy, self-enhancement ($p=0,00$) and reciprocal communication ($p=0,02$) are statistically correlated between them. The correlation is low for parental active involvement ($p=ns$) and emotional support ($p=ns$). The fact that there is difference between students' and parents' perceptions on parental support highlights the necessity and the importance for research to investigate the opinions of both participants on the issue.

SCCT suggests that the impact of parental support may depend on the way the child responds and interprets the support. Lent et al. (2000) stressed that the critical aspects SCCT highlights are to distinguish between objective and perceived support. Each party, parents

and students, may interpret supportive parental behaviour differently. Most existing studies have only researched the students' perspective on how supportive their parents are (Turner & Lapan, 2002; Alliman-Brissett et al., 2004; Constantine, Wallace, & Kindaichi, 2005). The specific process of trying to make sense of the way each party perceives support stresses the ability of the individual to exercise personal agency. Parents may interpret the support they provide as helpful and beneficial but may not take into consideration adolescents' needs for autonomy and competence (Garcia et al., 2012). The contribution of this study lies in the fact that it offers the perception of each group on both constructs of career decision self-efficacy and parental support.

Conclusively, the findings showed that both adolescents and their parents in Cyprus get and offer respectively, much parental support, and this support has influences career decision and development. But they have a different perception on the ways this support is given. Both perceptions by the participants in the research is closely connected to the Cypriot sociocultural context.

This study verifies the results of other researchers within the island and globally that parental support is very important in educational and career decision making. Research revealed that parents are one of the significant others, in the social context, who play a vital role in influencing children "on how academics should be pursued and accomplished throughout a lifetime" (Ruholt, et al., 2015, p. 1), and in supporting them which affects positively their career development (Bandura, 1999; Otto, 2000; Lent, et al., 1994, 2000; Turner & Lapan, 2002; Oomen, 2016). In Cyprus, a recent PISA Report implied (Mousoulides & Karagiorgi, 2014), consistent with the literature, that family context plays an essential role in adolescents' career development.

A lot of European countries are targeted towards strategies to involve parents to a larger extent in the educational and career decision making of their children in secondary education (Oomen, 2016). For Cypriot society family is the most important foundation, providing emotional and economical support to its members (Georgiou, 1995; Koumoundourou, et al., 2011). Cypriot culture is characterized as relatively collectivist with strong family bonds (Georgas, et al., 1997; Georgiou & Meins, 2010). This reflects the close relationships between parents and children and parental involvement in educational and career choices is prevalent and even continues after they enter Higher Education and in some cases is excessive (Symeou, et al., 2018).

5.2.1 Gender

The analysis showed that there was no significant difference between boys and girls for the factors of “*Reciprocal communication*” and “*Parental active involvement*”. Both genders seemed to perceive their parental support similarly for the two-parental way of support. . The lack of difference may imply that parents offer to their children, independently of their gender, the same support through reciprocal communication and opportunities to learn which derive from their parent’s direct involvement and personal experiences.

A statistically significant difference was found because of gender with respect to adolescents’ opinion on parental support regarding “*Self-enhancement*” and “*Emotional support*”. Adolescents, participating in this research, seemed to perceive their parents’ support referring to the enhancement they get to get actively involved in career decision process and learn from their own experiences and the way their parents support them emotionally differently according to their gender. Girls seem to declare better satisfaction with a statically significant difference from the self-enhancement they receive from their

parents to get actively involved in career decision processes than boys. These findings are consistent with past research (Jacobs, et al., 2006; Pappas & Kounenou, 2011). Concerning the way parents support their children regarding the way they interpret and perceive emotional support, boys seemed to declare that they feel more support than girls. Apart from being significantly different, the means for this variable are very low - below 2,5 for both genders - meaning that participants do not feel they are emotionally supported enough by their parents.

On the other hand, parents were asked to report the degree of support they offer to their children according to the children's gender. The results showed that there was no statistically significant difference between boys and girls for the factors of "Self-enhancement", "*Reciprocal communication*", and "Emotional Support". This lack of gender difference is not verified by previous research (Arbona, 2000; Eccles, 1994) which supports that parents treat their children differently according to their gender in terms of the activities they encourage them to participate. Statistically, significant difference was only found for "Parental active involvement", meaning that parents who participated in this research claim that they offer more support to boys referring to opportunities to learn from their parents' direct involvement and personal experiences than they offer to girls. This difference may imply that girls are more autonomous and depend more on their own experiences in contrast to boys who need extra support through others' experiences. Another implication could be that girls are considered by their parents more capable of learning from others' experiences and could do that by themselves, whereas boys may need support to achieve this.

Apart from being significantly different, the means for "Parental active involvement" are very low - below 2,5 (*Very Little support*) - for girls meaning that parents offer to their

daughters less support. For boys, the mean is above 2,5 (*Little support*), implying that parents claim that for sons they offer more support through this factor.

Comparing parents' and adolescents' answers, one could argue that the two groups of participants disagree on how gender influences parental support. For adolescents, females seemed to receive more enhancement to be actively involved in career decision process and gain personal experiences than boys, whereas parents feel they offer the same enhancement independently of their child's gender. Males also seemed to report that they receive more emotional support, while females seemed to have less support. In contrast, parents seemed to feel that they offered emotional support equally to both. On the other hand, parents' answers are differentiated according to the child's gender regarding the opportunities children are offered to learn from their parents' personal experiences claiming to offer to boys more opportunities than to girls. These findings are inconsistent with the study of Alliman-Brissett et al. (2004) with African American adolescents' career self-efficacy in which girls seem to perceive emotional support from their parents in a more responsive way than boys. On the other hand, it is consistent with the finding of the same study (Alliman-Brissett et al., 2004) that boys are more responsive to their parents' career-related modelling than girls.

Regarding the parents' gender, the results showed that there was no significant difference between mothers' and fathers' answers for any of the four factors related to the four parental ways employed to enhance career decision self-efficacy beliefs. The lack of difference may imply that both parents seemed to perceive parental support similarly regarding all factors. Both parents consider they support their children "*Much*", in order to develop and enhance career decision self-efficacy beliefs, through "Emotional Support" and "Reciprocal Communication". The next lower mean, according to the participants, is through

“Self-enhancement” and the one for which they claim they offer less support is through “Parental active involvement”.

5.2.2 Type of school

The participants in both schools, Lyceum and Technical, feel that their parents support them “much” in all variables but claim that they need more emotional support. The lack of difference in the participants’ answers could suggest that adolescents have similar feeling about the support they have from their parents and implies that parents do not differentiate their support according to the school their children attend.

There was a statistically significant difference in the support participants are offered by their parents with respect to the enhancement they get to earn personal experiences by getting actively involved in career decision making and on the basis of the school the adolescents attend. It is observed that children who attend Lyceum feel they have more support connected to the enhancement they get by their parents to gain personal experiences than students who attend Technical school. This finding may imply that parents of students who attend Lyceums feel that they need to offer their children more opportunities for personal experiences. In contrast to parents whose children attend STVE schools who may think that they have already made their career choices, due to the vocational orientation of STVE, therefore there is no need to enhance them to get involved in career decision processes to gain personal experiences. No research was traced in literature to associate parental support and the type of school their children attend.

5.2.3 Parent’s Educational Level

According to the results, the mothers’ level of education does not differentiate the support they offer to their children apart from emotional support. The fact that mothers’ level

of education influences the way they support their children emotionally may imply that adolescents feel they do not have the emotional support they wish independently of their mothers' level of education. Adolescents whose mothers have attended Higher Education seemed to feel they get more emotional support than the ones whose mothers have completed Lyceum/Technical school and much more from the ones who have only completed Primary Education. This finding may imply that mothers with higher education may be able to support their children regarding this variable. On the other hand, the analysis revealed only for the factor "*Reciprocal communication*" statistically significant difference among the three different fathers' educational level, primary education, Lyceum/Technical school, and Higher Education. Adolescents who participated in this research seem to claim that the more educated their fathers are, the better support they offer with respect to the reciprocal communication they employ to support them in making career decisions. It is worth noting that educational level is statistically significant for mothers for emotional support factor, whereas for fathers for reciprocal communication. This finding implies that the level of education affects the way mothers support their children whereas for fathers it affects the encouragement and the empowerment they offer to their children. This does not confirm previous research (Pappas, and Kounenou, 2011), in which students of the sample perceived that the father's education level had a more significant influence than mothers on their career decision-making ability. These findings may be due to the parents' different roles in the family. Some studies argue that mothers' role is usually associated with providing emotional support to children (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004; Burleson, and Kunkel, 2002). Future studies may investigate the different roles of parents in the family.

The analysis from the parents' questionnaire did not reveal any statistically significant difference among the five different parents' educational level for all factors apart

from “Reciprocal communication” and the opinion of parents who have completed Lyceum/Technical school and Higher Education. Parents who have completed Higher education claim that they use communication as a means of support for developing career decision self-efficacy more than parents who have completed Lyceum/Technical school. This finding is consistent with adolescents’ questionnaire regarding parents’ level of education. The finding may imply that parents with higher education find it easier to use communication skills, as they feel more efficient in convincing their children to try.

Regarding the adolescents’ questionnaire, the lowest mean for all variables is observed for those adolescents whose parents have completed primary or secondary education, whereas the highest is observed for those who have completed Lyceum/Technical School or Higher Education for all factors. Although the difference is not statistically significant, it is worth noting that adolescents whose parents have completed lower levels of education report low means of the support they receive. While the ones whose parents have completed higher levels of education stated higher means of parental support.

The means in all factors and for all levels of fathers’ and mother’s education are above 3,5, apart from the variable of emotional support for which the mean is below 2,5. The mean score above 3,5 implies that adolescents feel “much” support from either their father or mother. The support is achieved through the adolescents’ enhancement to get actively involved in career decision processes in order to acquire personal experiences (Self-enhancement), Reciprocal communication and the chances they offer them learn through their parents’ personal experiences (Parental active involvement). The lowest mean is observed in emotional support, implying that the support they get for this factor is “little”. A Paired t-test revealed that parents reported that they consider they support their children more through “Reciprocal Communication” and “Emotional support”, but students claimed to get

more support through “Self-enhancement” and “Parental active involvement”. This finding may imply that parents perceive their supportive role more related to offering emotional support, encouragement and empowerment, while students interpret support as the opportunities their parents offer them to gain more personal experiences through their active involvement in career decision processes and the opportunities they get to learn by their parents’ personal direct involvement and experiences. No research was found to have compared parents’ and students’ perceptions of parental support.

Notably, the parents’ questionnaire revealed that the lower means for all levels of education for all variables is observed for “Parental active involvement”. This finding implies that parents do not feel they support so much their children through offering them opportunities to learn from their parents’ personal experiences while children claim that they get much of this kind of support. This again may have to do with the different ways parents and students perceive the support and may imply that students might perceive parents’ behaviour related to career-related support as controlling rather than facilitative which may hinder personal career choices and interests (Schultheiss et al.,2001).

5.3 Parental understanding of the support they are providing and young people’s understanding of the support they are receiving is not aligned

This study has revealed that parental understanding of the support they are providing and young peoples’ understanding of the support is not aligned.

Parents’ answers reveal that they do not believe they support their children efficiently enough by offering them the opportunity to learn from their parents’ personal experiences. They claim they support them more by enhancing them to get actively involved in career decision process in order to gain personal experiences and through reciprocal

communication. Parents' claim that they do not support their children through parental active involvement it is consistent with literature suggesting that others' experiences are essential when individuals are not confident enough with their own experiences (Schunk, 1981, 1983, 1987) and that encouragement through communication enhances the opportunity to gain personal experiences and can play an essential role in one's self-efficacy beliefs (Zeldin , & Pajares,1997).

Adolescents claim that their parents support them more through self-enhancement and parental active involvement whereas parents claim that the parental ways they use more are emotional support and reciprocal communication.

Examining the context matters, as Sultana (2017) suggested, as these findings may be related to the excessive active involvement of parents in Cyprus (Symeou, et al., 2018) which seem to be more prevalent for adolescents than parents. Zhang et al. (2019) supported the results of this research that parental support through active parental involvement and enhancement of adolescents' active involvement in career process enhance career decision self-efficacy beliefs. Parents in Cyprus consider that they do not support their children enough through self-enhancement and parental active involvement. They support that they mostly use reciprocal communication and emotional support whereas adolescents claim that these two parental ways are lower than active involvement. This is most probably connected to the adolescence a phase in individuals' lives when adolescents go through a lot of changes (Wang and Sheikh-Khalil, 2014) which affect the relationships around them and the need for communication and emotional support becomes more important. This is also verified by the work of Thorslund, Alfredsson, and Axberg (2019) on universal parental support for parents of adolescents. The parents' consideration in this study that they support their children less

with active involvement may be connected with the Cypriot culture of excessive s active involvement of parents in some cases as discussed in Symeou et al.'s research (2018).

Since this is a unique study in terms of examining the different perception of parents and adolescents it is not possible to correlate the findings with other research.

5.4 Counselling implications

The results of this study suggest counselling interventions which may address students or/and parents. These interventions will be discussed in connection with recent literature regarding counselling interventions especially in European countries, and taking into consideration the Cyprus context and the way Career Counselling Service in High schools in the island operates.

This study supports the belief which has been explained and researched in the literature that parents' role in career decision process is valuable (Oomen, 2016; Lent, et al., 1994, 2002; Bandura, 1997, 1999; Young, 1994; Kenny et al., 2003; Wall et al., 1999; McWhirter et al., 1998; Li et al., 2017; Hlad' o et al., 2019; Jiang, 2017; Chan, 2019; Franco et al., 2019). Thus, schools and counsellors should ensure that parents are aware of the importance of the influence (Taylor et al. 2004) they have on their children's career development and choices (Otto, 2000; Guerra, & Braungart-Rieker, 1999; Taylor et al., 2004). Acknowledging that, they should get more involved with their children in activities and events which offer experiences and information necessary for a more suitable career choice for students.

Therefore, any kind of counselling intervention suggested through this study will involve parents as well, although this could be a big challenge for Cyprus career counselors in many European countries (Oomen, 2016). Counselling interventions regarding parents will

adopt Oomen's (2017) three different approaches to involve parents: information-focused interventions, family learning and family counselling or family therapy. Counselling interventions for students will make use of the existing structures offered by the MOECSY, especially in Secondary Education.

Initially, although interventions to increase self-efficacy are suggested (Betz et al., 2012) for the behavioural domain when the scores are below 3 (*Moderate Confidence*), it may be advisable to consider interventions for problem-solving which was closer to 3. The low scores may imply moderate confidence in the skills needed for this domain as during adolescence individuals are asked to make crucial decisions about their career and educational future. It is noticeable that no variable exceeded score 4 (*Much Confidence*) for both adolescents and their parents, and this should be considered in planning intervention programs. Interventions also take account on the fact that parents do not think problem-solving skills create difficulties as much as their children do. Considering Bandura's (1986) claim that young students are generally overconfident about their abilities, career counselling interventions need to help students acquire realistic expectations and protect them from the danger of experiencing feelings like disappointment, in the case of continual failures. The interventions could firstly take the form of information-focused interventions in order to inform parents about the issue and the ways they can help their children cultivate problem solving skills. Then, interventions may take a more specific form, with a family learning approach, in cases where the school counselor estimates that the family lacks the skills or the knowledge to achieve the goal. Sessions involving actively both child and parents could be organized and which may be undertaken either by the school counselor him/herself or the school psychologist when needed.

Another possible implication for school counsellors could be to design intervention programs to help parents and especially mothers, as the results of the study have revealed, to have real and achievable expectations regarding career choices from their children. These interventions presupposed that parents should learn more about their children's abilities and skills. It is therefore significant for mothers as well to acknowledge this observation, especially those who hold higher degrees, in order to enhance their children's self-efficacy beliefs and adapt their expectations to their children's abilities. These kinds of interventions could be more effective if they take the form of the approach of family learning interventions as described by Oomen (2016), where parents attend small group sessions with guidance in order to learn how to get to know their child's needs and abilities first and then be empowered for "coaching" their children (Oomen, 2016) and teaching them to have realistic expectations from themselves. In specific cases, the school counselors may need to adopt Oomen's suggested approach of family counselling or family therapy if the school counsellor realizes that the family involved is dysfunctional. The help needed should be offered by professionally trained career experts or other kind of experts should become involved, such as psychologists, psychotherapists, social workers etc.

The results also suggest that intervention programs should address the way parents can help their children to perceive and interpret the way they feel psychologically and physically and face emotional support as a facilitator to deal with the situation rather than to hinder their feelings. School counselors can aid parents in learning how to provide emotional support, by showing empathy and understanding the emotions that adolescents experience when they face difficult educational and vocational challenges/choices. Empathy can be achieved by encouraging parents to share similar experiences of their own. Parents may also need help in the way they talk to their adolescents. School counsellors may offer support and

assistance through various effective ways like role-playing, group counselling for parents or mixed group counselling with parents and children, community-based individual counselling (Thorslund et al., 2019). The approach for these interventions could firstly take the form of information-focused interventions in order to get the parents informed on the issue and then adopt family learning interventions in the cases where more specific help is needed (Oomen, 2016).

A great deal of research (Fukuyama et al.,1988; Betz & Luzzo, 1996; Luzzo et al.,1996) suggested and implemented interventions which increased career decision self-efficacy beliefs. Lipshits-Braziler, et al. (2015) suggested planning school counselling intervention programs around the four sources of information of self-efficacy (mastery experience, vicarious experience, verbal persuasion and affective arousal), in order to enhance students' occupational self-awareness. It is essential to keep in mind that career counselling today needs to prepare students for an unspecific world of work. Therefore, career counsellors should acknowledge that self - efficacious students are more confident in their future career process, demonstrate flexibility in unspecific situations and develop skills needed for achieving and maintain their career (Aspinwall et al., 2001).

Therefore, intervention programs or implications for parents and school counsellors should address what parents and schools can do to enhance children's opportunities to learn from others.

The findings may imply for school counsellors that both parents and adolescents need more help in the area of dealing with emotions. Therefore, school counsellors should engage in planning interventions to help parents and children learn how to develop skills dealing with emotions, to learn how to learn to acknowledge, face and interpret correctly the way

they feel psychologically and physically especially in stressful situations. Pajares (2005) suggested helping young people “read” their emotional feelings and “if they find themselves experiencing undue anxiety when faced with a task, this is an appropriate time to discuss their feelings with a teacher, parent, or counsellor” (Pajares, 2005, p.351). Turner and Lapan (2002) also suggested that school counsellors could help parents. The first is to give them the opportunity to understand thoroughly the careers available for their children and expand their range of vocational choices. The second is to train parents regarding “career-related communication skills, such as how to listen to their adolescents' career concerns, how to provide adolescents with verbal feedback about career choices, and how to provide adolescents with individual instruction in work-related skills and values” (Paa & McWhirter, 2000; Young & Friesen, 1992 in Turner & Lapan, 2002, p. 54). All three approaches to involve parents suggested by Oomen (2016), information-focused interventions, family learning and family counselling or family therapy, could be very useful for this kind of interventions for both students and their parents. Depending on the amount of difficulty traced in the school, the school counsellor may adopt either approach or all three of them in different cases. The intervention could begin with a lecture on informing parents and students generally on the issue and then form various sessions on different subjects and let them choose the group that offers the issue they feel they need more help on. Finally, family therapy sessions could be organized for cases that need more help and despite their participation in the previous groups they need more help.

The results regarding the predictors of self-efficacy beliefs should be seriously considered in planning counselling intervention programs to support both parents and students. Results suggest that intervention programs should concentrate on cultivating skills related to offering support through verbal persuasion, vicarious experience and affective

arousal. The analysis of the results also supported that gender is a predictive variable which should also be taken into consideration when planning intervention programs regarding support.

The findings of this study demonstrate that counsellors in Cyprus need to plan intervention programs for adolescents in order to help them acquire realistic expectations and cultivate problem-solving skills. Intervention programs should also address parents in order to teach them how to help their children to cultivate all the above skills and learn how to support their children emotionally more effectively. These programs should also ensure that parents are aware of the influence they have on their children's career development and choices. School counsellors should also find ways to get parents more involved with their children in activities and events that offer experiences and information necessary for a more suitable career choice. Oomen's work (2017) on the approaches school career counselors could adopt to get parents more involved may be a useful tool in designing interventions. Career Counselling Service in Cyprus (MOECSY, 2018) offers school counselors the authority to organize, in cooperation with the principal of the school, any kind of intervention concerning parents and students. All three approaches of interventions suggested by Oomen (2016) and mainly information-focused intervention have been used by school counselors in schools. This could be due to the small community (Georgiou, 1995; Avgousti, 2018; Symeou, et al., 2018) where issues regarding the functioning and the relationships among family members are very difficult to address.

CONCLUSION

The idea for this study was initiated during the first years of my service as a school counsellor in Cyprus. The aim was to learn more about the way children make career choices, what facilitates and what hinders their decisions. The goal was to be able to be more efficient in counselling and to provide adequate support to the students and their families. Career choice seems to become more and more difficult because of various changes and challenges taking place for the individual, the educational system around the world, the world of work, and the skills needed to succeed and maintain one's professional success. After a thorough study of career development theories, self-efficacy was chosen as the critical component of the study and as the foundation for individuals' academic, personal and career development. Self-efficacy has various effects on human behaviour through which individuals can acquire the skills needed to "survive" in a continuously changing and challenging academic and vocational field. Since the research was conducted among adolescents and their parents in the Republic of Cyprus, Cypriot sociocultural context was examined and associated with the methodology chosen and the discussion of the findings.

If somebody wishes to understand first and then help students, one should inevitably involve parents in the process especially in a sociocultural context like Cyprus where parents support their children both emotionally and economically and have an active involvement even during Higher education. This study was conducted in Cyprus, a small island with very tight family bonds (Georgas, et al., 1997; Georgiou & Meins, 2010), where children are very much dependent on their families. Social and parental support is taken for granted in a small family-orientated country with strong family bonds rather than in a bigger country. Since self-efficacy was the concept under investigation, parental support was examined in terms of the ways they employ to enhance children's career decision self-efficacy beliefs.

The research investigated the students' career decision self-efficacy beliefs and the influence of parental support through the four ways employed to enhance career decision self-efficacy: self-enhancement, reciprocal communication, parental active involvement and emotional support. The significance of this research lies on the fact that it does not depend on self-referent reports of either students or their parents. It is a recording of parents' and students' views on the same investigation. This study achieved a matching sample consisting of students and their parents through which a comparison of perceptions was correlated. Most studies up until now that have investigated career decision self-efficacy beliefs and the role of parental support have concentrated on the students' perceptions.

Before conducting the leading research, a preparatory phase took place. Initially, the need to create a questionnaire examining parental support came up. A pilot study took place in order to diminish any problems that might arise. Then, the main research was planned. Validation analysis for both questionnaires was conducted. This phase was one of the most essential steps in this study. The final items were chosen, and the analysis began.

The study revealed that both adolescents and their parents feel confident to a high degree to try tasks and activities needed for career decisions. Gender, the type of school they attended, and parents' educational level do not influence their confidence. The adolescents who participated in this study seemed to derive their confidence more from their parent's support since three out of four parental ways employed to enhance career decision self-efficacy beliefs predict career decision self-efficacy.

Nevertheless, parental support is perceived differently by the participants in this research. Gender, the type of school and the level of parents' education differentiate to some

extent perceived parental support. Gender, reciprocal communication, active parental involvement and emotional support can predict self-efficacy beliefs.

The results of this study enhance the vocational psychologists' suggestion of encouraging the development and evaluation of counselling interventions designed to increase career decision-making self-efficacy beliefs and broaden career choices (Betz and Luzzo, 1996). The literature gives very good examples of counselling interventions designed to increase career self-efficacy through career groups (Sullivan & Mahalik, 2000), computer-assisted career intervention and group exploration activities (Turner & Lapan, 2005).

6.1 Limitations of the study

This study has limitations and results should be viewed taking into consideration the following: Firstly, schools were initially selected in order to cover a representative sample of high-school students of all provinces of the island for both High and Technical schools. Unfortunately, this was not possible because some schools were either not willing to cooperate, or they initially agreed to participate in the survey but abandoned the effort at the end. Although the planning of the survey was done primarily in order to match parents' and students' answers, this was done in a minimal sample as parents' participation in the survey was minimal. Parents' participation in the survey was minimal despite the efforts both by the schools and the researcher. Students in the Technical school, as the facilitator informed the researcher, found it very difficult to answer the questionnaire due to a great difficulty to understand the questions of the questionnaires although the researcher tried to keep the wording very simple. This may be explained by the fact that in Cyprus usually, low achieving students attend Technical school. Therefore, the sample from the Technical Schools is minimal so generalisations of the results could not be achieved and any kind of comparisons

between the two types of schools should be viewed with reservation. Because the pilot study did not include students from Technical school, during the main research, the problem of understanding the questions arose from the specific population, although the pilot study did not reveal such a problem. Finally, the parental support questionnaire, after exploratory factor analysis, ended up with a limited number of items, especially for the factor of emotional support. Based on all these limitations, generalization should not be attempted, but suggestions for future research could be made based on the limitations and the researcher's experience of this attempt.

6.2 Directions for future research

Subsequent research should focus more on the evaluation of the effect of parental educational level on career decision self-efficacy beliefs. It is necessary to investigate more and reveal the difficulties of not well-educated parents in providing support to their children. The different parental roles of mothers and fathers regarding the provision of support is necessary. A study may collect data from both parents in order to reveal their roles and the kind of support they offer according to their level of education and gender. Research on students' self-efficacy beliefs should include their teachers' and school counsellors perceptions as well. A longitudinal study could also investigate adolescents' career process after school to university and then to work in order to reveal the effects of parental support or the lack of support. A longitudinal study, for example, was conducted by Mau & Bikos (2000) to examine the relative importance of school, family, social-psychological, race, and gender variables in predicting educational and vocational aspirations. Students were followed through two years beyond their high school educational program. Creed, Patton, and Prideaux (2006) also conducted a longitudinal study surveying 166 students when they were in Grade

8 of high school, and then again when they were in Grade 10, using measures of career indecision and career decision-making self-efficacy

The findings of this study also suggest that future studies need to investigate the different roles of parents in the family in supporting children's career decision self-efficacy beliefs and the reasons why children and parents perceive parental support differently.

6.3 Contribution to knowledge

The main contributions to the knowledge of this study are firstly the fact that it offers the perception of each group, parents and adolescents, on both constructs of career decision self-efficacy and parental support. Most studies until today have been researching solely from the students' perspective on how supportive their parents are (Turner & Lapan, 2002; Alliman-Brissett, et al., 2004; Constantine, et al., 2005; Guan, et al., 2016; Wang, et al., 2019; Mao, et al., 2017; Retnam, et al., 2018; Liang, et al., 2020).

Secondly, the study investigated for the first time in Cyprus students' career-related self-efficacy beliefs and how parents shape, influence and enhance these beliefs. Thirdly, the study compared students' self-efficacy beliefs and parental support in general and technical and vocational education for the first time in literature. Besides, it is the first time that the CDESES-SF by Betz et al. (1996) is being used to explore parents' opinion of their child's ability to make decisions. In order to achieve to have both parents' and students' perspective on the two issues, students' self-efficacy beliefs and parents' support this research measures "perceived self-efficacy" in terms not only from the individual's themselves perspective but from the others' perspective that of the children's parents. This approach is an original contribution and, to my knowledge CDESES-SF has not been used in the same way before in research. Finally, the significant role of parents' educational level, not as part of family's

SES, and the type of school for parental support were investigated for the first time in Cyprus and the career development literature.

The uniqueness of this study lies also on the fact that parents support this lack of gender differences and at the same time implies that parents do not differentiate their support according to their child's gender. Instead, they have the same perception, independently of the gender of their children's skills or abilities, to accomplish tasks related to career choice.

6.4 Recommendations for counselling interventions

The findings of this study demonstrate that counsellors in Cyprus need to plan intervention programs for adolescents in order to help them acquire realistic expectations, cultivate problem-solving skills, develop skills dealing with emotions, face and interpret correctly the way they feel psychologically and physically especially in stressful situations. Intervention programs should also address parents in order to teach them how to help their children to cultivate all the above skills. Community-based individual counselling interventions for parents are suggested. These programs should also ensure that parents are aware of the influence they have on their children's career development and choices. School counsellors should also find ways to get parents more involved with their children in activities and events that offer experiences and information necessary for a more suitable career choice. The counselling interventions should get the form of information-focused interventions, family learning and family counselling or family therapy (Oomen, 2016) depending on the issue addressed or could be a combination of the two or three approaches.

REFERENCES

- Afifi, T. D., & Olson, L. (2005). The chilling effect in families and the pressure to conceal secrets. *Communication Monographs, 72*(2), 192-216.
- Ahrens, J. A., & O'Brien, K. M. (1996). Predicting gender-role attitudes in adolescent females: Ability, agency, and parental factors. *Psychology of Women Quarterly, 20*(3), 409-417.
- Alexander, K. L., Entwisle, D. R., Blyth, D. A., & McAdoo, H. P. (1988). Achievement in the first 2 years of school: Patterns and processes. *Monographs of the society for research in child development, i*-157.
- Ali, S. R., McWhirter, E. H., & Chronister, K. M. (2005). Self-efficacy and vocational outcome expectations for adolescents of lower socioeconomic status: A pilot study. *Journal of career assessment, 13*(1), 40-58.
- Alliman-Brissett, A. E., Turner, S. L., & Skovholt, T. M. (2004). Parent support and African American adolescents' career self-efficacy. *Professional School Counseling, 124*-132.
- Alshenqeeti, H. (2014). Interviewing as a data collection method: *A critical review. English Linguistics Research, 3*(1), 39-45.
- American School Counselor Association. (2000, revised 2006). The professional school counselor and student safety on the internet. Alexandria, VA

- Amundson, R. (2005). *The changing role of the embryo in evolutionary thought: roots of evo-devo*. Cambridge University Press.
- Arbona, C. (2000). The development of academic achievement in school aged children: Precursors to career development. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology (3rd ed.)*. New York: Wiley
- Argyropoulou, K., & Kaliris, A. (2018). From career decision-making to career decision-management: New trends and prospects for career counseling. *Advances in Social Sciences Research Journal*, 5(10,) 483-502.
- Aspinwall, L. G., Richter, L., & Hoffman, R. R. (2001). Understanding how optimism works: An examination of optimists' adaptive moderation of belief and behavior. *Optimism and pessimism: Implications for theory, research, and practice*, 217-238.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of college student personnel*, 25(4), 297-308.
- Aunola, K., Stattin, H., & Nurmi, J. E. (2000). Parenting styles and adolescents' achievement strategies. *Journal of adolescence*, 23(2), 205-222.
- Aurah, C. (2017). Investigating the relationship between science self-efficacy beliefs, gender, and academic achievement, among high school students in Kenya. *Journal of Education and Practice*, v8 n8 p146-153.

Avgousti, C. (2018). Enrolment of a job? The dilemma of Economic Crisis

Among Young People: "A Case study of First Year Students in Higher Education Institutions and New Employees in the Labor Market in Cyprus, before and after the Financial Crisis". *Journal of Education and Practice*, 9,7, 108-118.

Ballout, H. I. (2009). Career commitment and career success: moderating role of self-efficacy. *Career Development International*.

<http://dx.doi.org/10.1108/13620430911005708>

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191-215.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, 37(2), 122-147.

Bandura A. (1986a). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hal

Bandura, A. (1986b). The explanatory and predictive scope of self-efficacy theory. *Journal of social and clinical psychology*, 4(3), 359-373.

Bandura, A. (1989). Human agency in social cognitive theory. *American psychologist*, 44(9), 1175-1184.

Bandura, A. (1994). Social cognitive theory and exercise of control over HIV

infection. In *Preventing AIDS* (pp. 25-59). Springer, Boston, MA.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York:

Freeman.

Bandura, A. (1999). Social cognitive theory of personality. *Handbook of personality, 2*, 154-196.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology, 52(1)*, 1-26.

Bandura, A. (2004). Health promotion by social cognitive means. *Health education & behavior, 31(2)*, 143-164.

Bandura, A. (2014). Social cognitive theory of moral thought and action. In *Handbook of moral behavior and development* (pp. 69-128). Psychology Press.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996).

Multifaceted impact of self-efficacy beliefs on academic functioning. *Child development, 67(3)*, 1206-1222.

Bandura, A. B., Barbaranelli, C. C., Caprara, G.V., & Pastorelli, C.(2001).

Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72(1)*, 187-206.

BarNir, A., Watson, W. E., & Hutchins, H. M. (2011). Mediation and moderated

mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of Applied Social Psychology, 41(2)*, 270-297.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph, 4* (1, Pt. 2).

Baumrind, D. (1989). Rearing competent children. In W Damon (Ed.), *Child development today and tomorrow* (pp. 349-378). San Francisco: Jossey-Bass

BERA Council 2011: *Ethical Guidelines for Educational Research*. Available at: www.bera.ac.uk/system/files/3/BERA-Ethical-Guidelines-2011.pdf

Betz, N. E., & Borgen, F. H. (2010). Relationships of the Big Five personality domains and facets to dimensions of the healthy personality. *Journal of Career Assessment, 18(2)*, 147-160.

Betz, N. E., & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice behavior. *Journal of social and clinical psychology, 4(3)*, 279-289.

Betz, N. E., & Hackett, G. (1997). Applications of self-efficacy theory to the career assessment of women. *Journal of career assessment, 5(4)*, 383-402.

Betz, N. E., & Luzzo, D. A. (1996). Career assessment and the career

decision-making self-efficacy scale. *Journal of career assessment*, 4(4), 413-428.

Betz, N. E., & Schifano, R. S. (2000). Evaluation of an intervention to increase realistic self-efficacy and interests in college women. *Journal of Vocational Behavior*, 56(1), 35-52.

Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, 4(1), 47- 57.

Betz, N. E., & Taylor, K. M. (2012). Career decision self-efficacy scale and short form sampler set: *Manual, instrument, and scoring guide*. Mind Garden, Inc.

Biesta, G. J. J., & Burbules, N. C. (2003). *Pragmatism and educational research*. Lanham, MD: Rowman and Littlefield.

Bleeker, M. M., & Jacobs, J. E. (2004). Achievement in math and science: Do mothers' beliefs matter 12 years later?. *Journal of Educational Psychology*, 96(1), 97.

Blustein, P. (2003). *The Chastening: Inside the crisis that rocked the global financial system and humbled the IMF*. New York: Public Affairs.

Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy:

How different are they really?. *Educational psychology review*, 15(1), 1-40.

Bores-Rangel, E., Church, A. T., Szendre, D., & Reeves, C. (1990). Self-efficacy in relation to occupational consideration and academic performance in high school equivalency students. *Journal of Counseling Psychology*, 37(4), 407-418

Bourdieu, P. (1990) *The Logic of Practice*. Stanford, CA: Stanford University Press.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual review of psychology*, 53(1), 371-399.

Bright, J. E., & Pryor, R. G. (2005). The chaos theory of careers: A user's guide. *The Career Development Quarterly*, 53(4), 291-305.

Britner, S. L., & Pajares, F. (2001). Self-efficacy beliefs, motivation, race, and gender in middle school science. *Journal of women and Minorities in Science and Engineering*, 7(4), 271-285.

Britner, S. L., & Pajares, F. (2006). Sources of science self-efficacy beliefs of middle school students. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 43(5), 485-499.

Brown, C., Darden, E. E., Shelton, M. L., & Dipoto, M. C. (1999). Career

exploration and self-efficacy of high school students: Are there urban/suburban differences?. *Journal of Career Assessment*, 7(3), 227-237.

Brown, D. (Ed.). (2002). *Career choice and development*. John Wiley & Sons.

Brown, J. E., & Mann, L. (1990). The relationship between family structure and process variables and adolescent decision making. *Journal of adolescence*, 13(1), 25-37.

Brown, J. E., & Mann, L. (1991). Decision-making competence and self-esteem: A comparison of parents and adolescents. *Journal of Adolescence*, 14(4), 363-371.

Buchanan, D., & Bryman, A. (Eds.). (2009). *The Sage handbook of organizational research methods*. Sage Publications Ltd.

Burleson, B. R., & Kunkel, A. (2002). Parental and peer contributions to the emotional support skills of the child: From whom do children learn to express support?. *The Journal of Family Communication*, 2(2), 81-97.

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological review*, 106(4), 676-713.

Buyukgoze-Kavas, A. (2014). Validation of the Career Adapt-Abilities Scale-Turkish Form and its relation to hope and optimism. *Australian Journal of Career Development*, 23(3), 125-132.

- Byars-Winston, A., & Rogers, J. G. (2019). Testing intersectionality of race/ethnicityx gender in a social–cognitive career theory model with science identity. *Journal of counseling psychology, 66(1)*, 30-44. <https://doi.org/10.1037/cou0000309.supp>
- Casanova, P. F., García-Linares, M. C., de la Torre, M. J., & Carpio, M. D. L. V. (2005). Influence of family and socio-demographic variables on students with low academic achievement. *Educational psychology, 25(4)*, 423-435.
- Chan, C. C. (2018). The relationship among social support, career self-efficacy, career exploration, and career choices of Taiwanese college athletes. *Journal of hospitality, leisure, sport & tourism education, 22*, 105-109.
- Chan, C. C. (2019). Social support, career beliefs, and career self-efficacy in determination of Taiwanese college athletes' career development. *Journal of Hospitality, Leisure, Sport & Tourism Education, 100232*, doi: <https://doi.org/10.1016/j.jhlste.2019.100232>
- Chen, C.P. (2003). Integrating perspectives in career development theory and practice. *Career development Quarterly, 51*, 203-216.
- Chen, G., Gully, S. M., & Eden, D. (2004). General self-efficacy and self-esteem: Toward theoretical and empirical distinction between correlated self-evaluations. *Journal of Organizational Behavior: The International Journal of*

Industrial, Occupational and Organizational Psychology and Behavior, 25(3), 375-395.

Chen, S. J., & Hwang, C. L. (1992). Fuzzy multiple attribute decision making methods. In *Fuzzy multiple attribute decision making* (pp. 289-486). Springer, Berlin, Heidelberg.

Chin, W. W., & Todd, P. A. (1995). On the use, usefulness, and ease of use of structural equation modeling in MIS research: a note of caution. *MIS quarterly*, 237-246.

Chung, Y. B. (2002). Career decision-making self-efficacy and career commitment: Gender and ethnic differences among college students. *Journal of Career Development*, 28(4), 277-284.

Church, A. T., Teresa, J. S., Rosebrook, R., & Szendre, D. (1992). Self-efficacy for careers and occupational consideration in minority high school equivalency students. *Journal of Counseling Psychology*, 39(4), 498-508.

COMPEDIUM (2014), *Cultural Policies and Trends in Europe: Country Profile, Cyprus*. Retrieved August 6, 2020, from https://www.culturalpolicies.net/wp-content/uploads/pdf_full/cyprus/cyprus_122014.pdf

Constantine, M. G., Wallace, B. C., & Kindaichi, M. M. (2005). Examining contextual factors in the career decision status of African American adolescents. *Journal of Career Assessment*, 13(3), 307-319.

Coplan, R. J., Hastings, P. D., Lagacé-Séguin, D. G., & Moulton, C. E. (2002).

Authoritative and authoritarian mothers' parenting goals, attributions, and emotions across different childrearing contexts. *Parenting, 2*(1), 1-26.

Creed, P., Patton, W., & Prideaux, L. A. (2006). Causal relationship between

career indecision and career decision-making self-efficacy: A longitudinal cross-lagged analysis. *Journal of career development, 33*(1), 47-65.

Crites, J.O. (1978). *Career Maturity Inventory administration & use manual*

(2nd ed.). Monterey, CA: CTBI McGraw-Hill.

Crockett, L.J., & Bingham, C. R. (2000). Anticipating adulthood: Expected

timing of work and family transitions among rural youth. *Journal of Research on Adolescence, 10*(2), 151-172.

CYPRUS PROFILE (2019). *Cyprus Country Report*. Retrieved August 6, 2020,

from <https://www.cyprusprofile.com/page/cyprus-country-report>

CYSTAT (a) (Statistical Service of the Republic of Cyprus) (2018). Demographic

Statistics. Nicosia, Cyprus. Retrieved September 20, 2019, from

<https://www.mof.gov.cy/mof/cystat/statistics.nsf/All/0F27BA4B99ABE197C2>

[2584BA003C9DED/\\$file/Demographic_Statistics-2018-EN-](https://www.mof.gov.cy/mof/cystat/statistics.nsf/All/0F27BA4B99ABE197C2_2584BA003C9DED/$file/Demographic_Statistics-2018-EN-)

[291119.pdf?OpenElement](https://www.mof.gov.cy/mof/cystat/statistics.nsf/All/0F27BA4B99ABE197C2_2584BA003C9DED/$file/Demographic_Statistics-2018-EN-291119.pdf?OpenElement)

CYSTAT (b) (Statistical Service of the Republic of Cyprus) (2018), Survey results

on Information and Communication Technology usage in households and by individuals 2018. Retrieved September 20, 2019, from [https://www.mof.gov.cy/mof/cystat/statistics.nsf/All/78C725E681B5FC67C225835C003C6D28/\\$file/Press_Release-ICT_Households-2018-EN-131218.pdf?OpenElement](https://www.mof.gov.cy/mof/cystat/statistics.nsf/All/78C725E681B5FC67C225835C003C6D28/$file/Press_Release-ICT_Households-2018-EN-131218.pdf?OpenElement)

- Damianakis, T., & Woodford, M. R. (2012). Qualitative research with small connected communities: Generating new knowledge while upholding research ethics. *Qualitative health research, 22*(5), 708-718.
- Davalos, D. B., Chavez, E. L., & Guardiola, R. J. (2005). Effects of perceived parental school support and family communication on delinquent behaviors in latinos and white non-latinos. *Cultural Diversity and Ethnic Minority Psychology, 11*(1), 57-68.
- Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: the indirect role of parental expectations and the home environment. *Journal of family psychology, 19*(2), 294.
- Dawis, R. V. (1996). Vocational psychology, vocational adjustment, and the workforce: Some familiar and unanticipated consequences. *Psychology, Public Policy, and Law, 2*(2), 229.
- Dawis, R. V. (2002). Person-environment-correspondence theory. *Career choice and development, 4*, 427-464.

- Dawis, R.V. (2005). The Minnesota theory of work adjustment. *Career Development, 1*.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment: An individual-differences model and its applications*. Minneapolis: University of Minnesota Press.
- De Jong, G. F. (2000). Expectations, gender, and norms in migration decision-making. *Population studies, 54(3)*, 307-319.
- Dennis, J. M., Phinney, J. S., & Chuateco, L. I. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of college student development, 46(3)*, 223-236.
- DeVellis, R.F. (2003). *Scale Development: Theory and applications (2nd ed.)*. Thousand Oaks, CA: Sage.
- Domina, T. (2005). Leveling the home advantage: Assessing the effectiveness of parental involvement in elementary school. *Sociology of education, 78(3)*, 233-249.
- Dos Santos, L. M. (2018). Career decision of recent first-generation postsecondary graduates at a metropolitan region in Canada: A social cognitive career theory approach. *Alberta Journal of Educational Research, 64(2)*, 141-153.

- Eccles, J. S. (1994). Understanding women's educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *Psychology of women quarterly*, 18(4), 585-609.
- Ellis, R. S. (2007). Entropy, large deviations, and statistical mechanics. New York: Springer Science & Business Media.
- Epstein, J. L. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press.
- Fadel, C., Bialik, M., & Trilling, B. (2015). *Four-dimensional education*. Boston, MA: Center for Curriculum Redesign.
- Fahle, E. M., Lee, M. G., & Loeb, S. (2019). *A Middle School Drop: Consistent Gender Differences in Students' Self-Efficacy*. In Policy Analysis for California Education, <https://files.eric.ed.gov/fulltext/ED600440.pdf>
- Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. *Educational psychology*, 30(1), 53-74.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational psychology review*, 13(1), 1-22.
- Fatima, S. I., Asghar, F., Khatoon, S. S., & Fatima, A. (2017). Relationship

between self-efficacy with career development among university students. *The International Journal of Indian Psychology*, 4 (3), 27-33.

Ferry, T. R., Fouad, N. A., & Smith, P. L. (2000). The role of family context in a social cognitive model for career-related choice behavior: A math and science perspective. *Journal of Vocational Behavior*, 57(3), 348-364.

Fitzgerald, L. F., & Crites, J. O. (1980). Toward a career psychology of women: What do we know? What do we need to know?. *Journal of Counseling Psychology*, 27(1), 44-62.

Fitzgerald, L. F., Fassinger, R. E., & Betz, N. E. (1995). Theoretical advances in the study of women's career development. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology (2nd ed., pp. 331–365)*. Mahwah, NJ: Erlbaum.

Flores, L. Y., & O'Brien, K. M. (2002). The career development of Mexican American adolescent women: A test of social cognitive career theory. *Journal of Counseling Psychology*, 49(1), 14-27.

Foody, G. M., Mathur, A., Sanchez-Hernandez, C., & Boyd, D. S. (2006). Training set size requirements for the classification of a specific class. *Remote Sensing of Environment*, 104(1), 1-14.

Foss, C. J., & Slaney, R. B. (1986). Increasing nontraditional career choices in

women: Relation of attitudes toward women and responses to a career intervention. *Journal of Vocational Behavior*, 28(3), 191-202.

Franco, M., Hsiao, Y. S., Gnilka, P. B., & Ashby, J. S. (2019). Acculturative stress, social support, and career outcome expectations among international students. *International Journal for Educational and Vocational Guidance*, 19(2), 275-291.

Fukuyama, M. A., Probert, B. S., Neimeyer, G. J., Nevill, D. D., & Metzler, A. E. (1988). Effects of DISCOVER on career self-efficacy and decision making of undergraduates. *The Career Development Quarterly*, 37(1), 56-62.

Garcia, P. R. J. M., Restubog, S. L. D., Bordia, P., Bordia, S., & Roxas, R. E. O. (2015). Career optimism: The roles of contextual support and career decision-making self-efficacy. *Journal of Vocational Behavior*, 88, 10-18.

Garcia, P. R. J. M., Restubog, S. L. D., Toledano, L. S., Tolentino, L. R., & Rafferty, A. E. (2012). Differential moderating effects of student-and parent-rated support in the relationship between learning goal orientation and career decision-making self-efficacy. *Journal of Career Assessment*, 20(1), 22-33.

Gati, I., Levin, N., & Landman-Tal, S. (2019). Decision-making models and career guidance. In *International handbook of career guidance* (pp. 115-145). Springer, Cham.

Gati, I., & Tal, S. (2008). Decision-making models and career guidance. In

International handbook of career guidance (pp. 157-185). Dordrecht: Springer.

Gaudron, J. P. (2011). A psychometric evaluation of the career decision self-efficacy scale—short form among French university students. *Journal of Career Assessment, 19*(4), 420-430.

Georgas, J., Christakopoulou, S., Poortinga, Y. H., Angleitner, A., Goodwin, R., & Charalambous, N. (1997). The relationship of family bonds to family structure and function across cultures. *Journal of Cross-Cultural Psychology, 28*(3), 303-320.

Georgiou, S. N. (1995). Family dynamics and school achievement in Cyprus. *Journal of Child Psychology and Psychiatry, 36*(6), 977-991.

Georgiou, M., & Meins, E. (2010). Relations between peer attachment, self-esteem, and perceived parental bonding in Greek Cypriot and British young adults. *The Cyprus Review, 22*(1), 61-77.

Ghate, D., & Hazel, N. (2002). *Parenting in poor environments: Stress, support and coping*. Jessica Kingsley Publishers.

Gianakos, I. (2001). Predictors of career decision-making self-efficacy. *Journal of Career Assessment, 9*(2), 101-114.

Gianakos, I. (2002). Predictors of coping with work stress: The influences of

sex, gender role, social desirability, and locus of control. *Sex Roles*, 46(5-6), 149-158.

Ginzberg, E., Ginsburg, S. W., Axerlad, S., & Herma, J. L. (1951).

Occupational choice. New York: Columbia University.

Gottfredson, G. D., & Holland, J. L. (1996). *Dictionary of Holland occupational*

codes. Odessa, FL: Psychological Assessment Resources Inc.

Gottfredson, L. S. (1981). Circumscription and compromise: A developmental

theory of occupational aspirations. *Journal of Counseling psychology*, 28(6), 545-579.

Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise,

and self-creation. *Career choice and development*, 4, 85-148.

Gottfredson, L. S. (2005). Using Gottfredson's theory of circumscription and

compromise in career guidance and counseling. *Career development and counseling: Putting theory and research to work*, 71-100.

Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2009). The middle and

late career stages. *Career management*, 230-261.

Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's

schooling: A multidimensional conceptualization and motivational model. *Child development*, 65(1), 237-252.

- Gross, D., Fogg, L., & Tucker, S. (1995). The efficacy of parent training for promoting positive parent—toddler relationships. *Research in nursing & health, 18(6)*, 489-499.
- Guan, P., Capezio, A., Restubog, S. L. D., Read, S., Lajom, J. A. L., & Li, M. (2016). The role of traditionality in the relationships among parental support, career decision-making self-efficacy and career adaptability. *Journal of Vocational Behavior, 94*, 114-123.
- Guerra, A. L., & Braungart-Rieker, J. M. (1999). Predicting career indecision in college students: The roles of identity formation and parental relationship factors. *The career development quarterly, 47(3)*, 255-266.
- Guichard, J., & Lenz, J. (2005). Career theory from an international perspective. *The Career Development Quarterly, 54(1)*, 17-28.
- Gushue, G. V., Scanlan, K. R., Pantzer, K. M., & Clarke, C. P. (2006). The relationship of career decision-making self-efficacy, vocational identity, and career exploration behavior in African American high school students. *Journal of Career Development, 33(1)*, 19-28.
- Gushue, G. V., & Whitson, M. L. (2006). The relationship among support, ethnic identity, career decision self-efficacy, and outcome expectations in African American high school students: Applying social cognitive career theory. *Journal of Career Development, 33(2)*, 112-124.

- Hackett, G. (1993). Career counseling and psychotherapy: False dichotomies and recommended remedies. *Journal of Career Assessment, 1*(2), 105-117.
- Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. *Journal of vocational behavior, 18*(3), 326-339.
- Hackett, G., Betz, N. E., Casas, J. M., & Rocha-Singh, I. A. (1992). Gender, ethnicity, and social cognitive factors predicting the academic achievement of students in engineering. *Journal of counseling Psychology, 39*(4), 527.
- Hackett, G., & Betz, N. E. (1995). Self-efficacy and career choice and development. In *Self-efficacy, adaptation, and adjustment* (pp. 249-280). Boston, MA: Springer.
- Hackett, G., Betz, N. E., O'Halloran, M. S., & Romac, D. S. (1990). Effects of and mathematics task performance on task and career self-efficacy and interest. *Journal of Counseling Psychology, 37*(2), 169-177.
- Hackett, G., & Betz, N. E. (1992). Self-efficacy perceptions and the career-related choices of college students. *Student perceptions in the classroom, 229-246*.
- Hackett, G., Lent, R. W., & Greenhaus, J. H. (1991). Advances in vocational theory and research: A 20-year retrospective. *Journal of vocational Behavior, 38*(1), 3-38.
- Hammersley, M., & Gomm, R. (2008). Assessing the radical critique of

interviews. *Questioning qualitative inquiry: Critical essays*, 89-100.

Hampton, N. Z. (2005). Testing for the structure of the career decision self-efficacy scale-short form among Chinese college students. *Journal of Career Assessment*, 13(1), 98-113.

Hampton, P. (2005). *Reducing administrative burdens: effective inspection and enforcement*. London: HM Stationery Office.

Hargrove, B. K., Creagh, M. G., & Burgess, B. L. (2002). Family interaction patterns as predictors of vocational identity and career decision-making self-efficacy. *Journal of vocational behavior*, 61(2), 185-201.

Harlow, A. J., & Bowman, S. L. (2016). Examining the career decision self-efficacy and career maturity of community college and first-generation students. *Journal of Career Development*, 43(6), 512-525.

Hartas, D. (2010). *Quantitative research as a method of inquiry in education. Educational Research and Inquiry-Qualitative and Quantitative Approaches*, 65-81.

Henderson, A. T., & Mapp, K. L. (2002). A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement. *Annual Synthesis*, 2002.

Hlad' o, P., Kvasková, L., Ježek, S., Hirschi, A., & Macek, P. (2019). Career

adaptability and social support of vocational students leaving upper secondary school. *Journal of Career Assessment*, doi:1069072719884299.

Hodkinson, P., & Sparkes, A. C. (1997). Careership: a sociological theory of career decision making. *British journal of sociology of education*, 18(1), 29-44.

Hokodan, A., & Fincham, F. D. (1995). Origins of children's helpless and mastery achievement patterns in the family. *Journal of Educational Psychology*, 87(3), 375-385.

Holland, J. L. (1959). A theory of vocational choice. *Journal of counseling psychology*, 6(1), 35.

Holland, J. L. (1973). Genetic algorithms and the optimal allocation of trials. *SIAM Journal on Computing*, 2(2), 88-105.

Holland, J. L. (1985a). *The self-directed search*. Psychological Assessment Resources.

Holland, J.L. (1985b). *Making vocational choices: A theory of vocational personalities and work environments*, Englewood Cliffs, NJ: Prentice-Hall.

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Odessa, FL: Psychological Assessment Resources.

- Holland, J. L., Whitney, D. R., Cole, N. S., & Richards, J. M. (1969). An empirical occupational classification derived from a theory of personality and intended for practice and research (ACT Research Report No. 29). *Iowa City: American College Testing Program.*
- Hooley, T. (2015). *Emancipate Yourselves from Mental Slavery: Self-Actualisation, Social Justice and the Politics of Career Guidance.* Derby: International Centre for Guidance Studies, University of Derby
- Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why do parents become involved in their children's education? *Review of educational research, 67(1), 3-42.*
- Hoover-Dempsey, K. V., Walker, J. M., & Sandler, H. M. (2005). Parents' motivations for involvement in their children's education. *School-family partnerships for children's success, 40-56.*
- Hornby, G., & Lafaele, R. (2011). Barriers to parental involvement in education: An explanatory model. *Educational review, 63(1), 37-52.*
- Hossler, D., & Stage, F. K. (1992). Family and high school experience influences on the postsecondary educational plans of ninth-grade students. *American Educational Research Journal, 29(2), 425-451.*
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance

structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.

Hughey, K. F., & Hughey, J. K. (1999). Preparing students for the future:

Making career development a priority. *Journal of Career Development*, 25(3), 203-216.

Jacobs, J. E., Chhin, C. S., & Bleeker, M. M. (2006). Enduring links: Parents'

expectations and their young adult children's gender-typed occupational choices. *Educational Research and Evaluation*, 12(4), 395-407.

Jeynes, W. H. (2005). Effects of parental involvement and family structure on

the academic achievement of adolescents. *Marriage & Family Review*, 37(3), 99-116.

Jeynes, W. H. (2007). The relationship between parental involvement and

urban secondary school student academic achievement: A meta-analysis. *Urban education*, 42(1), 82-110.

Jeynes, W.H. (2010). The salience of the subtle aspects of parental

involvement and encouraging that involvement: Implications for school-based programs. *Teachers College Record*, 112, 747-774

Jeynes, W. H. (2011a). Parental involvement research: Moving to the next

level. *School Community Journal*, 21(1), 9-18.

Jeynes, W. H. (2011b). *Parental involvement and academic success*. New

York, NY: Taylor & Francis.

Jiang, Z. (2017). Social support and career psychological states: An integrative model of person–environment fit. *Journal of career assessment, 25*(2), 219-237.

Johnson, S. K. (2019). *So Many Changes Happening All at Once: Investigating First-year College Students' Academic and Social Self-efficacy, Perceived Stress, and Career Development Behaviors During the Adjustment to College Using Social Cognitive Career Theory*. Nebraska: ProQuest LLC, <https://search.proquest.com/docview/2311960164>

Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self- and job and life satisfaction: the role of self-concordance and goal attainment. *Journal of applied psychology, 90*(2), 257-268.

Jungers, C., LPCC-S, N. C. C., & Jocelyn Gregoire, C. S. S. P. (Eds.). (2012). *Counseling ethics: Philosophical and professional foundations*. N.Y: Springer Publishing Company.

Kalender, Z. Y., Marshman, E., Nokes-Malach, T., Schunn, C., & Singh, C. (2019). Large gender differences in physics self-efficacy at equal performance levels: A warning sign? In *Proceedings of the 2018 Physics Education Research Conference*, Washington, DC, 2018, <https://doi.org/10.1119/perc.2018.pr.Kalender>

- Karagiorgi, Y., & Nicolaidou, M. (2010). Opening Pandora's box: School autonomy in Cyprus and emerging implications for school leaders. *Management in Education, 24*(2), 62-68.
- Kazdin, A. E. (2000). *Psychotherapy for children and adolescents: Directions for research and practice*. Oxford: Oxford University Press.
- Keller, B. K., & Whiston, S. C. (2008). The role of parental influences on young adolescents' career development. *Journal of Career Assessment, 16*(2), 198-217.
- Kelly, A. R. (1950). *Eleanor of Aquitaine and the four kings (Vol. 15)*. Cambridge: M.A, Harvard University Press.
- Kenny, M. E., Blustein, D. L., Chaves, A., Grossman, J. M., & Gallagher, L. A. (2003). The role of perceived barriers and relational support in the educational and vocational lives of urban high school students. *Journal of Counseling Psychology, 50*(2), 142-155.
- Kerpelman, J. L., Eryigit, S., & Stephens, C. J. (2008). African American adolescents' future education orientation: Associations with self-efficacy, ethnic identity, and perceived parental support. *Journal of Youth and Adolescence, 37*(8), 997-1008.
- Kimitris, P. N. (2018). The Cypriot Educational System and the Lesson of

<https://files.eric.ed.gov/fulltext/ED589150.pdf>

King, V., & Elder Jr, G. H. (1998). Perceived self-efficacy and grandparenting.

The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 53(5), S249-S257.

Klein, A. (1998). Firm performance and board committee structure. *The*

Journal of Law and Economics, 41(1), 275-304.

Kline, T. J. (2005). Psychological testing: A practical approach to design and

evaluation. *Sage Publications*. Thousand Oaks, CA: Sage.

Kniveton, B. H. (2004). The influences and motivations on which students

base their choice of career. *Research in Education*, 72(1), 47-59.

Koumoundourou, G., Tsaousis, I., & Kounenou, K. (2011). Parental influences

on Greek adolescents' career decision-making difficulties: The mediating role of core self-evaluations. *Journal of Career Assessment*, 19(2), 165-182.

Kracke, B. & Noack, P. (2005). Die Rolle der Eltern für die Berufsorientierung von

Jugendlichen [The role of parents in adolescents' career development]. In B. H. Schuster, H.-P. Kuhn, & H. Uhlendorff (Eds.), *Entwicklung in sozialen Beziehungen* (pp. 169-193). Stuttgart, Germany: Lucius & Lucius.

Krieschok, T. S., Black, M. D., & McKay, R. A. (2006). *Reason, intuition, and*

engagement: A trilateral model of adaptive career decision-making.
Unpublished manuscript, School of Education, University of Kansas.

Krumboltz, J. D. (1979). A social learning theory of career decision making. In

A. M. Mitchell, G. B. Jones, & J. D. Krumboltz (Eds.), *Social learning and career decision making* (pp. 19–49). Cranston, RI: Carroll.

Krumboltz, J. D. (1994). Improving career development theory from a social

learning perspective. In M. L. Savikas, & R. W. Lent (Eds.), *Convergence in career development theories: Implications for science and practice* (pp. 9–31). Palo Alto, CA: CPP Books.

Krumboltz, J. D. (1996). A learning theory of career counseling. In M.

Savickas & W. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 55–80). Palo Alto, CA: Davies-Black.

Krumboltz, J. D., & Levin, A. S. (2004). *Luck is no accident: Making the most*

of happenstance in your life and career. Atascadero, CA: Impact Publish

Krumboltz, J. D., Mitchell, A. M., & Jones, G. B. (1976). A social learning

theory of career selection. *The counseling psychologist*, 6(1), 71-81.

Lancaster, G. A., Dodd, S., & Williamson, P. R. (2004). Design and analysis of

pilot studies: recommendations for good practice. *Journal of evaluation in clinical practice*, 10(2), 307-312.

- Lapan, R. T., & Jingeleski, J. (1992). Circumscribing vocational aspirations in junior high school. *Journal of Counseling Psychology, 39*(1), 81-90.
- Lapan, R. T., Adams, A., Turner, S., & Hinkelman, J. M. (2000). Seventh graders' vocational interest and efficacy expectation patterns. *Journal of Career Development, 26*(3), 215-229.
- Lapan, R. T., Hinkelman, J. M., Adams, A., & Turner, S. (1999). Understanding rural adolescents' interests, values, and efficacy expectations. *Journal of Career development, 26*(2), 107-124.
- Lauver, P. J., & Jones, R. M. (1991). Factors associated with perceived career options in American Indian, White, and Hispanic rural high school students. *Journal of Counseling Psychology, 38*(2), 159-166.
- Lefever, S., Dal, M., & Matthiasdottir, A. (2007). Online data collection in academic research: advantages and limitations. *British Journal of Educational Technology, 38*(4), 574-582.
- Lent, R. W. (2005). A Social Cognitive View of Career Development and Counseling. Lent, R. W., & Brown, S. D. (1996). Social cognitive approach to career development: An overview. *The Career Development Quarterly, 44*(4), 310-321.
- Lent, R. W., & Hackett, G. (1987). Career self-efficacy: Empirical status and future directions. *Journal of vocational Behavior, 30*(3), 347-382.

- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of vocational behavior, 45(1)*, 79-122.
- Lent, R. W., Brown, S. D., & Hackett, G. (1996). Career development from a social cognitive perspective. *Career choice and development, 3*, 373-421.
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of counseling psychology, 47(1)*, 36.
- Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. *Career choice and development, 4*, 255-311.
- Lent, R. W., Brown, S. D., & Larkin, K. C. (1987). Comparison of three theoretically derived variables in predicting career and academic behavior: Self-efficacy, interest congruence, and consequence thinking. *Journal of counseling psychology, 34(3)*, 293-298
- Lent, R. W., Lopez, F. G., & Bieschke, K. J. (1991). Mathematics self-efficacy: Sources and relation to science-based career choice. *Journal of counseling psychology, 38(4)*, 424-430.
- Leung, S. A. (2008). The big five career theories. In *International handbook of career guidance* (pp. 115-132). Dordrecht: Springer Netherlands: 115-132

- Liang, Y., Zhou, N., Dou, K., Cao, H., Li, J.-B., Wu, Q., Liang, Y., Lin, Z., & Nie, Y. (2020). Career-related parental behaviors, adolescents' consideration of future consequences, and career adaptability: A three-wave longitudinal study. *Journal of Counseling Psychology, 67*(2), 208-221.
- Li, Y. I., Hazler, R. J., & Trusty, J. (2017). Relational self-construal as a moderator of social support in career decision making. *The Career Development Quarterly, 65*(1), 44-56.
- Lindsay, G. (2010). Ethical considerations and legal issues in educational research. *Educational research and inquiry: Qualitative and quantitative approaches, 110-127*.
- Lipshits-Braziler, Y., Gati, I., & Tatar, M. (2015). Strategies for coping with career indecision: Concurrent and predictive validity. *Journal of Vocational Behavior, 91*, 170-179.
- Lopez, F. G., & Lent, R. W. (1992). Sources of mathematics self-efficacy in high school students. *The Career Development Quarterly, 41*(1), 3-12.
- Luengo Kanacri, B. P., Pastorelli, C., Eisenberg, N., Zuffianò, A., & Caprara, G. V. (2013). The development of prosociality from adolescence to early adulthood: The role of effortful control. *Journal of Personality, 81*(3), 302-312.
- Luzzo, D. A. (1993). Value of career-decision-making self-efficacy in

predicting career-decision-making attitudes and skills. *Journal of Counseling Psychology, 40*(2), 194.

Luzzo, D. A., & Taylor, M. (1994). Effects of verbal persuasion on the career self-efficacy of college freshmen. *CACD Journal, 94*, 31-34.

Luzzo, D. A., Funk, D. P., & Strang, J. (1996). Attributional retraining increases career decision-making self-efficacy. *The Career Development Quarterly, 44*(4), 378-386.

Lv, B., Zhou, H., Liu, C., Guo, X., Jiang, K., Liu, Z., & Luo, L. (2018). The Relationship Between Parental Involvement and Children's Self-Efficacy Profiles: A Person-Centered Approach. *Journal of Child and Family Studies, 27*(11), 3730-3741.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In E.M. Hetherington (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality and social development* (pp.469-546). New York: Wiley.

Maddi, S. R. (2012). *Creating meaning through making decisions*. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical application* (pp. 3–26). Mahwah, NJ: Lawrence Erlbaum Associates

Matud, M. P., Bethencourt, J. M., & Ibáñez, I. (2014). Relevance of gender roles

in life satisfaction in adult people. *Personality and individual differences*, 70, 206-211.

Mao, C. H., Hsu, Y. C., & Fang, T. W. (2017). Mediating effect of career decision self-efficacy on the relationship between parental support and indecision in Taiwan. *Journal of Career Development*, 44(6), 471-484.

Matsui, T., Matsui, K., & Ohnishi, R. (1990). Mechanisms underlying math self-efficacy learning of college students. *Journal of Vocational Behavior*, 37(2), 225-238.

Mau, W. C., & Bikos, L. H. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling & Development*, 78(2), 186-194.

Mau, W. C. J., Perkins, V. J., & Mau, Y. H. (2016). Gender and racial differences in career decision-making dispositions of college students enrolled in STEM majors. *Universal Journal of Psychology*, 4(6), 254-260.
<http://dx.doi.org/10.13189/ujp.2016.040602>

Mauthner, M. (2000). Snippets and silences: Ethics and reflexivity in narratives of sistering. *International Journal of Social Research Methodology*, 3(4), 287-306.

McDonald, R. P., & Ho, M. H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological methods*, 7(1), 64.

- McGrath, P. (2006). The biggest worry...': research findings on pain management for Aboriginal peoples in Northern Territory, Australia [Electronic version.]. *Rural and Remote Health*, 6, 549. Retrieved from <http://www.rrh.org.au/articles/subviewnew.asp?ArticleID=549>.
- McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child development*, 61(2), 311-346.
- McMahon, M., Watson, M., & Patton, W. (2014). Context-resonant systems perspectives in career theory. In *Handbook of career development* (pp. 29-41). New York: Springer.
- McQuestion, M., Ahiadeke, C., Posner, J., & Williams, T. (2012). Psychosocial processes and sexual initiation among Ghanaian youth. *Health Education & Behavior*, 39(3), 268-275.
- McWhirter, E. H., Crothers, M., & Rasheed, S. (2000). The effects of high school career education on social–cognitive variables. *Journal of Counseling Psychology*, 47(3), 330-341.
- McWhirter, E. H., Hackett, G., & Bandalos, D. L. (1998). A causal model of the educational plans and career expectations of Mexican American high school girls. *Journal of Counseling Psychology*, 45(2), 166-181.
- Mendez, S. L., Conley, V. M., Keith, R. S., Haynes, C., & Gerhardt, R. (2017).

Mentorship in the engineering professoriate: exploring the role of social cognitive career theory. *International Journal of Mentoring and Coaching in Education*, 6, 4, 302-316.

Meynhardt, T., Brieger, S. A., & Hermann, C. (2020). Organizational public value and employee life satisfaction: The mediating roles of work engagement and organizational citizenship behavior. *The International Journal of Human Resource Management*, 31(12), 1560-1593.

Miller, M. J., Sendrowitz Roy, K., Brown, S. D., Thomas, J., & McDaniel, C. (2009). A confirmatory test of the factor structure of the short form of the Career Decision Self-Efficacy Scale. *Journal of Career Assessment*, 17(4), 507-519.

Mitchell, K. E., Al Levin, S., & Krumboltz, J. D. (1999). Planned happenstance: Constructing unexpected career opportunities. *Journal of counseling & Development*, 77(2), 115-124.

Mitchell, L. K. (1990). Social learning approach to career decision making: Krumboltz's theory. *Career choice and development: Applying contemporary theories to practice*, 2(1), 145-196.

Mitchell, L. K., & Krumboltz, J. D. (1984). Research on human decision making:

Implications for career decision making and counseling. In S.D. Brown & R.W. Lent (Eds). *Handbook of counseling psychology* (pp.238-280) New York: Wiley.

MOECSY (Ministry of Education, Culture, Sport and Youth), (2012). *Higher Education in Cyprus*. Retrieved June 20, 2020, from <http://www.highereducation.ac.cy/en/index.html>

MOECSY (Ministry of Education, Culture, Sport and Youth), (2018). *Annual Report*. Retrieved June 20, 2020, from http://www.moec.gov.cy/en/annual_reports/annual_report_2018_en.pdf

MOECSY (a) (Ministry of Education, Culture, Sport and Youth), (2020). *Department of Secondary General Education*. Retrieved June 20, 2020, from <http://www.moec.gov.cy/dme/en/index.html>

MOECSY (b) (Ministry of Education, Culture, Sport and Youth), (2020). *Department of Secondary Technical and Vocational Education*. Retrieved June 20, 2020, from <http://www.moec.gov.cy/mtee/en/index.html>

MOECSY (c) (Ministry of Education, Culture, Sport and Youth), (2020). *Career Counselling Service*. Retrieved June 20, 2020, from <http://www.moec.gov.cy/ysea/en/>

Molgat, M., Deschenaux, F., & LeBlanc, P. (2011). Vocational education in

Canada: do policy directions and youth trajectories always meet?. *Journal of Vocational Education & Training*, 63(4), 505-524.

Mortimer, J. T., Zimmer-Gembeck, M. J., Holmes, M., & Shanahan, M. J.

(2002). The process of occupational decision making: Patterns during the transition to adulthood. *Journal of Vocational Behavior*, 61(3), 439-465.

Mousoulides, N. & Karagiorgi, G. (2014). *PISA 2012 - Results for Cyprus entre of Educational Research and Evaluation*. Nicosia, Cyprus.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy

beliefs to academic outcomes: A meta-analytic investigation. *Journal of counseling psychology*, 38(1), 30-38.

Nicolaidou, M., & Georgiou, G. (2009). Good teachers become effective head

teachers? Preparing for headship in Cyprus. *Management in Education*, 23(4), 168-174.

Nicolaidou, M., & Philippou, G. (2003). Attitudes towards mathematics, self-

efficacy and achievement in problem solving. *European Research in Mathematics Education III*. Pisa: University of Pisa, 1-11.

Nissen, J. M. (2019). Gender differences in self-efficacy states in high school

physics. *Physical Review Physics Education Research*, 15(1), 013102-1-03102-7.

Noack, P., Kracke, B., Gniewosz, B., & Dietrich, J. (2010). Parental and school

effects on students' occupational exploration: A longitudinal and multilevel analysis. *Journal of Vocational Behavior*, 77(1), 50-57.

Nota, L., Ferrari, L., Solberg, V. S. H., & Soresi, S. (2007). Career search self-efficacy, family support, and career indecision with Italian youth. *Journal of career assessment*, 15(2), 181-193.

Nota, L., Soresi, S., & Zimmerman, B. J. (2004). Self-regulation and academic achievement and resilience: A longitudinal study. *International Journal of educational research*, 41(3), 198-215.

O'Brien, V., Martinez-Pons, M., & Kopala, M. (1999). Mathematics self-efficacy, ethnic identity, gender, and career interests related to mathematics and science. *The Journal of Educational Research*, 92(4), 231-235.

Oomen, A. (2016). Parental involvement in career education and guidance in secondary education. *Journal of the National Institute for Career Education and Counselling*, 37(1), 39-46.

Osipow, S. H. (1990). Convergence in theories of career choice and development: Review and prospect. *Journal of vocational behavior*, 36(2), 122-131.

Otto, L. B. (2000). Youth perspectives on parental career influence. *Journal of Career Development*, 27(2), 111-118.

- OXFORD UNIVERSITY PRESS (2012). Persist. In *Oxford Wordpower Dictionary*. (4th edition), p.541. UK: Oxford, OX2 6DP.
- Paa, H. K., & McWhirter, E. H. (2000). Perceived influences on high school students' current career expectations. *The Career Development Quarterly*, 49(1), 29-44.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of educational research*, 66(4), 543-578.
- Pajares, F. (1997). Current directions in self-efficacy research. *Advances in motivation and achievement*, 10(149), 1-49.
- Pajares, F. (2005). Gender differences in mathematics self-efficacy beliefs. *Gender differences in mathematics: An integrative psychological approach*, 294-315. Boston: Cambridge University Press.
- Pajares, F., & Johnson, M. J. (1996). Self-efficacy beliefs in the writing of high school students: A path analysis. *Psychology in the Schools*, 33(2), 163-175.
- Pajares, F., & Kranzler, J. (1995). Self-efficacy beliefs and general mental ability in mathematical problem-solving. *Contemporary educational psychology*, 20(4), 426-443.
- Pajares, F., & Schunk, D. H. (2005). Self-efficacy and self-concept beliefs:

Jointly contributing to the quality of human life. In H. Marsh, R. Craven, & D. McInerney (Eds.), *International advances in self research (Vol. 2, pp. 95–121)*. Greenwich, CT: Information Age Publishing.

Papadakis, Y. (2008). *History education in divided Cyprus: A comparison of Greek Cypriot and Turkish Cypriot school books on the “history of Cyprus”* (PRIO report 2/2008). Oslo, Norway: International Peace Research Institute.

Pappas, T. S., & Kounenou, K. (2011). Career decision making of Greek post secondary vocational students: the impact of parents and career decision making self-efficacy. *Procedia-Social and Behavioral Sciences, 15*, 3410-3414.

Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton-Mifflin.

Pashiardis, P., Savvides, V., Lytra, E., & Angelidou, K. (2011). Successful school leadership in rural contexts: The case of Cyprus. *Educational Management Administration & Leadership, 39(5)*, 536-553.

Pastorelli, C., Caprara, G. V., Barbaranelli, C., Rola, J., Rozsa, S., & Bandura, A. (2001). The structure of children's perceived self-efficacy: A cross-national study. *European Journal of Psychological Assessment, 17(2)*, 87-97.

Patton, W., & Creed, P. (2007). The relationship between career variables and occupational aspirations and expectations for Australian high school adolescents. *Journal of Career Development, 34(2)*, 127-148.

- Patton, W., & McMahon, M. (1999). *Career development and systems theory: A new relationship*. Pacific Grove, CA: Brooks/Cole Publishing Co.
- Patton, W., & McMahon, M. (2006). The systems theory framework of career development and counseling: Connecting theory and practice. *International Journal for the Advancement of Counselling*, 28(2), 153-166.
- Patton, W., Bartrum, D. A., & Creed, P. A. (2004). Gender differences for optimism, self-esteem, expectations and goals in predicting career planning and exploration in adolescents. *International Journal for Educational and Vocational Guidance*, 4(2-3), 193-209.
- Persianis, P. K. (2010). Τα πολιτικά της εκπαίδευσης στην Κύπρο κατά τους δύο τελευταίους αιώνες (1812-2009,) [*The politics of education in Cyprus over the last two centuries (1812-2009)*]. Nicosia: University of Nicosia Publications.
- Peterson, G. W., Lumsden, J. A., Sampson, J. P., Reardon, R. C., & Lenz, J. G. (2002). Using a cognitive information processing approach in career counseling with adults. *Adult career development: Concepts, issues and practices*, 98-117. Tulsa, OK: National Career Development Association.
- Peterson, G. W., Sampson Jr, J. P., & Reardon, R. C. (1991). *Career development and services: A cognitive approach*. Pacific Grove, CA: Brooks/Cole Publishing Co.

- Pihie, Z. L., & Bagheri, A. (2011a). Malay secondary school students' entrepreneurial attitude orientation and entrepreneurial self-efficacy: A descriptive study. *Journal of Applied Sciences, 11*(2), 316-322.
- Pihie, Z. L., & Bagheri, A. (2011b). Entrepreneurial Attitude and Self-efficacy. *Journal of applied sciences, 11*(18), 3308-3314.
- Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of educational research, 77*(3), 373-410.
- Presti, A. L., Pace, F., Mondo, M., Nota, L., Casarubia, P., Ferrari, L., & Betz, N. E. (2013). An examination of the structure of the career decision self-efficacy scale (short form) among Italian high school students. *Journal of Career Assessment, 21*(2), 337-347.
- Quigley, D. (2006). Perspective: A review of improved ethical practices in environmental and public health research: Case examples from Native Communities. *Health Education & Behavior, 33*(2), 130-147.
- Quintana, S. M., & Minami, T. (2006). Guidelines for meta-analyses of counseling psychology research. *The Counseling Psychologist, 34*(6), 839-877.
- Ramos, J. I. (1989). Internal combustion engine modeling. Hemisphere publishing corporation, ISBN 0-89116-157-0.

- Raque-Bogdan, T. L., & Lucas, M. S. (2016). Career aspirations and the first generation student: Unraveling the layers with social cognitive career theory. *Journal of College Student Development, 57*(3), 248-262.
- Ratelle, C. F., Larose, S., Guay, F., & Senécal, C. (2005). Perceptions of parental involvement and support as predictors of college students' persistence in a science curriculum. *Journal of family psychology, 19*(2), 286-293.
- Restubog, S. L. D., Florentino, A. R., & Garcia, P. R. J. M. (2010). The mediating roles of career self-efficacy and career decidedness in the relationship between contextual support and persistence. *Journal of vocational behavior, 77*(2), 186-195.
- Retnam, E., Asmuni, A., & Hamzah, S. R. A. (2018). Parental Support and Coach Influence towards Career Decision Making Self-Efficacy among National Student Athletes in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 8*(9).
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological bulletin, 138*(2), 353-387.
- Roberts, K. (2009). Opportunity structures then and now. *Journal of education and work, 22*(5), 355-368.

- Roe, A. (1956). *The psychology of occupations*. New York: Wiley.
- Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of educational psychology, 88*(3), 408-422.
- Rogers, C. R. (1942). *Counseling and Psychotherapy; newer concepts in practice*. Boston, MA: Houghton Mifflin.
- Rotberg, H. L., Brown, D., & Ware, W. B. (1987). Career self-efficacy expectations and perceived range of career options in community college students. *Journal of Counseling Psychology, 34*(2), 164-170.
- Rounds, J., & Tracey, T. J. (1996). Cross-cultural structural equivalence of RIASEC models and measures. *Journal of Counseling Psychology, 43*(3), 310-329.
- Ruholt, R. E., Gore, J., & Dukes, K. (2015). Is Parental Support or Parental Involvement More Important for Adolescents?. *Undergraduate Journal of Psychology, 28*(1), 1- 8.
- Sarason, B. R., Sarason, I. G., & Pierce, G. R. (1990). *Social support: An interactional view*. New York: John Wiley & Sons.
- Savickas, M. L. (2000). Renovating the psychology of careers for the twenty-

first century. *The future of career*, 53-68.

Savickas, M. L. (2005). The theory and practice of career construction. *Career development and counseling: Putting theory and research to work*, 1, 42-70.

Savickas, M., & Lent, R. W. (Eds.). (1994). *Convergence in career development theories: Implications for science and practice*. Paolo Alto, CA: Consulting Psychologists Press.

Schneewind, K. A. (1995). Impact of family processes on control beliefs. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 114–148). Cambridge, England: Cambridge University Press.

Schultheiss, D. E. P., Kress, H. M., Manzi, A. J., & Glasscock, J. M. J. (2001). Relational influences in career development: A qualitative inquiry. *The Counseling Psychologist*, 29(2), 216-241.

Schunk, D. H. (1981). Modeling and attributional effects on children's achievement: A self-efficacy analysis. *Journal of educational Psychology*, 73(1), 93-105.

Schunk, D. H. (1983). Ability versus effort attributional feedback: Differential effects on self-efficacy and achievement. *Journal of educational psychology*, 75(6), 848-856.

Schunk, D. H. (1987). Peer models and children's behavioral change. *Review*

of educational research, 57(2), 149-174.

Schunk, D. H., & Meece, J. L. (2005). *Self-efficacy beliefs of adolescents*. UK:

Information Age Publishing.

Schunk, D. H., & Meece, J. L. (2006). Self-efficacy development in

adolescence. *Self-efficacy beliefs of adolescents, 5*, Greenwich, Connecticut:

Information Age Publishing, 72-96.

Schunk, D. H., & Miller, S. D. (2002). *Self-efficacy and adolescents'*

motivation. Academic motivation of adolescents, 2, 29-52.

Scvaneveldt, Y. D. & Adams, G. R. (1983). Adolescents and the decision

making process. *Theory into Practice, 22(2), 98-104.*

Seiffge-Krenke, I. (2013). *Stress, coping, and relationships in adolescence*.

Psychology Press.

Shin, Y. J., & Lee, J. Y. (2018). Predictors of career decision self-efficacy: Sex,

socioeconomic status (SES), classism, modern sexism, and locus of control.

Journal of Career Assessment, 26(2), 322-337.

Shin, Y. J., Lee, E. S., & Seo, Y. (2019). Does Traditional Stereotyping of

Career as Male Affect College Women's, but Not College Men's, Career Decision Self-Efficacy and Ultimately Their Career Adaptability? *Sex Roles, 81(1-2), 74-86.*

Sidiropoulou-Dimakakou, D., Argyropoulou, K., Drosos, N., Kaliris, A., &

Mikedaki, K. (2016). Exploring career management skills in higher education: Perceived self-efficacy in career, career adaptability and career resilience in Greek university students. *International Journal of Learning, Teaching and Educational Research, 14*(2), 36-52.

Smith, H., & Betz, N. E. (2000). Development and evaluation of a measure of social self-efficacy in college students. *Journal of Career Assessment, 8*, 282-302.

Spokane, A. R. (1991). *Career intervention*. Englewood Cliffs, NJ: Prentice-Hal.

Steinberg, L. (1996). Ethnicity and adolescent achievement. *American Educator, 28*, 44–48.

Steinberg, L. (2001). We know some things: Parent–adolescent relationships in retrospect and prospect. *Journal of research on adolescence, 11*(1), 1-19.

Storme, M., & Celik, P. (2018). Career exploration and career decision-making difficulties: The moderating role of creative self-efficacy. *Journal of career assessment, 26*(3), 445-456.

Strand, S. (2010). Do some schools narrow the gap? Differential school effectiveness by ethnicity, gender, poverty and prior attainment. *School Effectiveness and School Improvement, 21*, (3), 289-314.

- Sultana, R. G. (Ed.). (2017). *Career guidance and livelihood planning across the Mediterranean: Challenging transitions in South Europe and the MENA Region*. Springer.
- Suldo, S. M., & Shaffer, E. J. (2007). Evaluation of the self-efficacy questionnaire for children in two samples of American adolescents. *Journal of Psychoeducational Assessment, 25*(4), 341-355.
- Sullivan, K. R., & Mahalik, J. R. (2000). Increasing career self-efficacy for women: Evaluating a group intervention. *Journal of Counseling & Development, 78*(1), 54-62.
- Super, D. E. (1953). A theory of vocational development. *American psychologist, 8*(5), 185-190.
- Super, D. E. (1957). *The psychology of careers; an introduction to vocational development*. New York: Harper & Row.
- Super, D. E. (1963). Vocational development in adolescence and early adulthood: Tasks and behaviors. In D. E. Super, R. Starishevsky, N. Matlin, & J. P. Jordan (Eds.), 79-95. *Career development: Self-concept theory*. New York: CEEB Research Monograph. No. 4.
- Super, D. E. (1964). A developmental approach to vocational guidance: Recent theory and results. *Vocational Guidance Quarterly, 13*(1), 1-10.

Super, D. E. (1972). *Psychologia zainteresowań*, tłum. Choynowska, PWN,
Warszawa.

Super, D. E. (1980). A life-span, life-space approach to career development.
Journal of vocational behavior, 16(3), 282-298.

Super, D. E. (1990). A life-span, life-space approach to career development. In
Brown. *Career choice and development: Applying contemporary theories to
practice (2nd ed.)*. pp197-262, San Francisco, CA: Jossey-Bass.

Super, D. E., Savickas, M. L., Super, C. M., Brown, D., & Brooks, L. (1996).

The life-span, life-space approach to careers. *Career choice and
development*, 3, 121-178, San Francisco: Jossey-Bass.

Symeou, L., Theodorou, E., Lamprinou, I., Rentzou, K., & Andreou, P. (2018).

Has family involvement migrated into higher education? An investigation of
how administrative staff document the phenomenon in students' university
experiences in Cyprus. *International Studies in Sociology of Education*, 27(1),
78-99.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics*. New
York: Harper & Row.

Tabachnick, B. G., Fidell, L. S. (2001). *Using Multivariate Statistics (4th ed.)*.

Needham Heights, MA: Allyn and Bacon

Tak, J. (2004). Structure of vocational interests for Korean college students.

Journal of Career Assessment, 12(3), 298-311.

Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004).

Fathers and mothers at play with their 2-and 3-year-olds: Contributions to language and cognitive development. *Child development, 75(6), 1806-1820.*

Taylor, J.D., Harris, M.B., & Taylor, S.R. (2004). Parents have their say...About

their college age children's career decisions. *Journal of National Association of Colleges and Employers, 15-20.*

Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers

of infants in the first year: The mediational role of maternal self-efficacy. *Child development, 62(5), 918-929.*

Thapar, A., Collishaw, S., Pine, D. S., & Thapar, A. K. (2012). Depression in

adolescence. *The Lancet, 379, 1056-1067.*

Thomsen, R. (2012). *Career guidance in communities*. Aarhus: Aarhus

University Press.

Thomsen, R. (2017). *Career Guidance in Communities: A Model for Reflexive*

Practice. Derby: International Centre for Guidance Studies, University of Derby.

Thorslund, K., Alfredsson, E., & Axberg, U. (2019). Universal parental support

for parents of adolescents: Who wants municipality-based parental support and in what form? *Scandinavian journal of psychology*, 60(1), 16-25.

Tran, A. T., & Von Korflesch, H. (2016). A conceptual model of social entrepreneurial intention based on the social cognitive career theory. *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 10 No. 1, pp. 17-38, available at: <https://doi.org/10.1108/APJIE-12-2016-007>

Turner, S., & Lapan, R. T. (2002). Career self-efficacy and perceptions of parent support in adolescent career development. *The Career Development Quarterly*, 51(1), 44-55.

Turner, S. L., & Lapan, R. T. (2005). Evaluation of an intervention to increase non-traditional career interests and career-related self-efficacy among middle-school adolescents. *Journal of Vocational Behavior*, 66(3), 516-531.

Tynkkynen, L., Nurmi, J. E., & Salmela-Aro, K. (2010). Career goal-related social ties during two educational transitions: Antecedents and consequences. *Journal of Vocational Behavior*, 76(3), 448-457.

Uitto, A. (2014). Interest, attitudes and self-efficacy beliefs explaining upper-secondary school students' orientation towards biology-related careers. *International Journal of Science and Mathematics Education*, 12(6), 1425-1444.

Van Esbroeck, R., Tibos, K. I. M., & Zaman, M. (2005). A dynamic model of

career choice development. *International Journal for Educational and Vocational Guidance*, 5(1), 5-18.

Vondracek, F. W., & Schulenberg, J. E. (1986). Career development in adolescence: Some conceptual and intervention issues. *Vocational Guidance Quarterly*, 34, 247-254.

Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (2019). *Career development: A life-span developmental approach*. Routledge.

Wall, J., Covell, K., & MacIntyre, P. D. (1999). Implications of social supports for adolescents' education and career aspirations. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 31(2), 63-71.

Walsh, W. B., & Chartrand, J. M. (1994). Emerging directions of person-environment fit. *Convergence in career development theories*, 187-196.

Wang, J., Fan, W., Cheung, F. M., Wang, Q., & Li, M. (2019). Personality and Chinese adolescents' career exploration: The mediation effects of self-efficacy and perceived parental support. *Journal of Pacific Rim Psychology*, 13.

Wang, M. T., & Sheikh-Khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school? *Child development*, 85(2), 610-625.

- Williamson, E. G. (1939). *How to counsel students: A manual of techniques for clinical counselors*. New York: McGraw Hill.
- Willis, P. (1977) *Learning to Labour – How Working Class Kids get Working Class Jobs*. Westmead, Farnborough, Hants: Saxon House.
- Willis, P. (1978) *Profane Culture*. London: Routledge and Kegan Paul.
- Willis, P. (1997) 'TIES: Theoretically Informed Ethnographic Study', in S. Nugent and C. Shore (eds), *Anthropology and Cultural Studies*. London: University of Chicago Press. pp. 182–192.
- Wilson, T., & Wilson, D. (1992). *The State and Social Welfare*. London: Longman.
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of management Review*, 14(3), 361-384.
- Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The counseling psychologist*, 34(6), 806-838.
- Wright, S. L. (2017). Attachment and self-efficacy in career search activities: a structural model. *The Career Development Quarterly*, 65(2), 98-112.
- Yap, S. T., & Baharudin, R. (2016). The relationship between adolescents'

perceived parental involvement, self-efficacy beliefs, and subjective well-being: A multiple mediator model. *Social Indicators Research*, 126(1), 257-278.

Young, R. A. (1994). Helping adolescents with career development: The active role of parents. *The Career Development Quarterly*, 42(3), 195-203.

Young, R. A., & Friesen, J. D. (1992). The intentions of parents in influencing the career development of their children. *The Career Development Quarterly*, 40(3), 198-206.

Young, R. A., Valach, L., Ball, J., Paseluikho, M. A., Wong, Y. S., DeVries, R. J., & Turkel, H. (2001). Career development in adolescence as a family project. *Journal of Counseling Psychology*, 48, 190–202.

Zeldin, A. L., Britner, S. L., & Pajares, F. (2008). A comparative study of the self-efficacy beliefs of successful men and women in mathematics, science, and technology careers. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 45(9), 1036-1058.

Zeldin, A. L., & Pajares, F. (1997). Against the odds: Self-efficacy beliefs of women with math-related careers. In meeting of the *American Educational Research Association*, Chicago.

Zeldin, A. L., & Pajares, F. (2000). Against the odds: Self-efficacy beliefs of

women in mathematical, scientific, and technological careers. *American educational research journal*, 37(1), 215-246.

Zhang, Y. C., Zhou, N., Cao, H., Liang, Y., Yu, S., Li, J., ... & Xiong, Q. (2019).

Career-specific parenting practices and career decision-making self-efficacy among chinese adolescents: The interactive effects of parenting practices and the mediating role of autonomy. *Frontiers in Psychology*, 10, 363. doi: 10.3389/fpsyg.2019.00363

APPENDICES

APPENDIX 1: A detailed summary of Career Choice and Development Theory

| DATE | THEORIST/ RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|------|---|--|---|---|---|
| 1909 | PARSONS E. | TRAIT AND FACTOR THEORY | <p>“In the wise choice of a vocation there are three broad factors: 1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and knowledge of their causes; 2) a knowledge of the requirements, conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; 3) true reasoning on the relations of these two groups of facts”.</p> <p>Individuals who actively engage in the choice of vocation are happier with their careers and have higher efficacy.</p> | <p>Parsons is the founder of vocational guidance movement</p> <p>Parsons’s conceptual framework dominated 20s & 30s</p> | Parsons, E. (1909). <i>Choosing a Vocation.</i> Boston: Houghton Mifflin |
| 1939 | WILLIAMSON E.G. | MINNESOTA POINT-OF-VIEW TRAIT AND FACTOR COUNSELLING THEORY | This theory stresses the role of counsellor in teaching, helping, influencing clients through individualized counselling in understanding their aptitudes and relating them to achievable goals. | Williamson expanded Parsons’s Theory with a counsellor-centred approach | Williamson, E.G. (1939). <i>How to counsel students.</i> New York: McGraw-Hill |
| 1942 | ROGERS, CARL | HUMANISTIC THEORY OF PERSONALITY | Roger’s theory emphasizes the importance of self-actualizing tendency in forming a self-concept. Clients are responsible for their own decisions and the role of the counsellor should be non-directive. | Rogers expanded Parsons’s Theory with his client-centred counselling and therapy approach but challenged Williamson’s theory | Rogers, C.R. (1942). <i>Counselling and Psychotherapy.</i> Boston: Houghton Mifflin |
| 1951 | GINZBERG, E., GINSBURG, S., AXERLAD, S. & HERMA, J. | LIFELONG DEVELOPMENTAL PROCESS | <p>Stages of career-choice: fantasy stage before 11 years old, tentative stage between 11-17 and realistic stage 17 until young adult.</p> <p>Ginzberg et al. stated that occupational choice is influenced by 4 facts: 1) Reality factor, 2) Educational process, 3) Emotional factor and 4) Individual values.</p> <p>They suggested that career choices are characterized by compromise and once made are irreversible</p> | Ginzberg et al. expanded Parsons’ Theory. In contrast to static trait and factor theory they were the first to view career development as a lifelong process in the career-choice. A psychologically based theory | Ginzberg, E., Ginsburg, S., Axerlad, S. & Herma, J. (1951). <i>Occupational choice: An approach to a general theory.</i> New York: Columbia University Press |

| DATE | THEORIST / RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|--|-----------------------|---------------------------------------|--|--|---|
| 1953 1957 1963 1964 1980 1990 | SUPER, DONALD | LIFE SPAN DEVELOPMENTAL THEORY | <p>Super's theory included propositions relating to Trait-and-factor theory (Parsons), developmental psychology (Ginzberg et al), and personal construct theory (Kelly, 1950), from which Super derived his ideas about self-concepts and sociological theory.</p> <p>“Super recognized the valuable contribution of the trait-and-factor theory and the matching model to vocational theory and guidance practice. But he also believed that they were too static and insufficient in explaining the complexities of vocational behaviour. Super proclaimed that occupational choice should be seen as an unfolding process, not a point-in-the-time decision. Therefore, he proceeded to supplement the trait-and-factor approach by constructing a comprehensive career theory in which (a) career development is seen as a lifelong process unfolding in a series of developmental stages and (b) career selection is not a one-shot decision but the cumulative outcome of a series decisions.</p> <p>In his attempts to shape a comprehensive career theory in the 1950s through the mid-1990s, Super complemented the traditional individual-difference approach to vocational guidance with three additional perspectives: (1) developmental perspective focusing on the life course of vocational behaviour and stressing continuity in career development, (2) phenomenological perspective emphasizing the role of self-concept in the development of an individual's career, and (3) contextual perspective bringing forward the importance of multiple social roles and their interaction across the life span.” Retrieved from http://career.iresearchnet.com/career-development/supers-career-development-theory/</p> | <p>Super expanded all previous theories and approaches. He continued to revise and refine his theory throughout his life (1953-1990).</p> <p>A sociological based theory.</p> <p>Great impact on career practice.</p> <p>Most influential models.</p> | <p>Super, D. E. 1953. “A Theory of Vocational Development.” American Psychologist 8:185</p> <p>Super, D. E. 1957. The Psychology of Careers. New York: Harper& Row.</p> <p>Super, D. E. 1963. “Self-concepts in Vocational Development.” Pp. 1-16 & “Toward Making Self-concept Theory Operational.” Pp. 17-31 in Career Development: Self-concept Theory. New York: College Entrance Examination Board.</p> <p>Super, D. E. 1964. “A Developmental Approach to Vocational Guidance: Recent Theory and Results.” Vocational Guidance Quarterly 13:1-10.</p> <p>Super, D. E. 1980. “A Life-span, Life-space Approach to Career Development.” Journal of Vocational Behaviour 16:282-298.</p> <p>Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), Career choice and development: Applying contemporary approaches to practice (2nd ed., pp. 197–261). San Francisco, CA: Jossey-Bass.</p> |

| DATE | THEORIS T/ RESEARC HER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|------|------------------------|--|--|---|---|
| 1956 | ROE, ANNE | NEEDS THEORY APPROACH TO CAREER DEVELOPMENT | “Roe developed a needs theory approach to career choice within which she conceptualized a two-way occupational classification system that involves person-oriented and non-person-oriented careers. She identified the combination of early parent-child relations, environmental experiences, and genetic features as determinants in the need structure of the individual. Person-oriented career: the individual satisfies needs primarily through interactions with people. Non-person-oriented career: the individual satisfies needs primarily by acting on things or ideas independently” Gregoire, J., Jungers, C. (2012). <i>The counsellor’s Companion: What Every Beginning Counsellor Needs to Know</i> . Routledge. p.320 | Roe’s major contribution is the emphasis of the impact of childhood experiences on career development and her classification of occupations (Service, Business contact, Organizational, Technology, Outdoor, Science, General cultural, Arts and entertainment) | Roe, A. (1956). <i>The psychology of occupations</i> . New York: Wiley |
| 1959 | HOLLAND, JOHN | THEORY OF VOCATIONAL CHOICE AND ADJUSTMENT | “The choice of career is an extension of one’s personality into the world of work. Individuals choose career that satisfy their preferred personal orientations. Holland developed six modal personal styles and six matching work environments: realistic, investigative, artistic, social, enterprising, and conventional. A person is attracted to the particular role demand of an occupational environment that meets his or her needs. It is predicted that the better the match, the better the congruence, satisfaction, and persistence (Holland, 1985).” Kazdin, A. (2000). Career: Career Development. <i>Encyclopedia of Psychology</i> . Oxford University Press. Vol. 2. p.26. | Holland extended the trait-and-factor theory from a static to a dynamic model . A full version of the theory was published in 1973 which was revised (Holland, 1985, 1997). His theory has had a tremendous impact on practice because of the instruments he developed and it is still the most influential model of vocational choice making . | Holland, J.L. (1959). A theory of vocational choice. <i>Journal of Counselling Psychology</i> , 59, 35-45 Holland, J.L. (1973). <i>Making vocational choices: A theory of careers</i> . Englewood Cliffs, NJ: Prentice Hall Holland, J.L. (1985 & 1997). <i>Making vocational choices: A theory of careers</i> . (2 nd & 3 rd ed. resp). Odessa, FL: Psychological Assessment Resources. |

| DATE | THEORIST/RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|--|---------------------|--------------------------------------|--|--|---|
| 1976 1979 1984 1990 1994 1996 1999 2004 | KRUMBOLTZ, J. | SOCIAL LEARNING CAREER THEORY | <p>“Krumboltz’s Social Learning Theory shows how individuals make career decisions that emphasizes the importance of behavior (action) and cognitions (knowing or thinking) in making career decisions, teaching clients career decision techniques and how to use them and examines four basic factors to understand why people choose the work they do as well as other occupationally related decisions.</p> <p>GENETIC ENDOWMENT (race, sex, disabilities, talents) ENVIRONMENTAL CONDITIONS AND EVENTS (nature of job/training opportunities, social policies, technological developments, incidents which change economy) LEARNING EXPERIENCES Instrumental Learning Experiences (H) Antecedents – Behaviors – Consequences – Example: if someone gets an A on an exam, she will be more likely to continue studying in that field than if she does poorly Associative Learning Experiences (O) When an individual pairs a situation that was previously neutral with one that is positive or negative, an associative learning experience occurs TASK APPROACH SKILLS Understanding how people approach tasks Task-approach skills – goal setting, values clarification, generating alternatives, obtaining occupational information, thoughts and beliefs arise from these. Interactions among genetic endowment, environmental conditions, and learning experiences lead to skills in doing a variety of tasks How someone approaches a task depends on previous experience and influences the outcome of the task. This theory focuses on teaching clients career decision-making alternatives and makes use of the concept of the ‘triadic reciprocal interaction’ (learning as the interaction with environment and genetic endowment) and emphasizes the role of instrumental & associative learning.” Retrieved from: http://lifestyleandcareerdevelopment.blogspot.com/2008/11/krumboltz-social-learning-theory.html</p> | <p>The original theory (Krumboltz et al, 1976, Mitchell & Krumboltz, 1990), known as the social learning theory of career decision making (SLTCDM), has recently been developed into the learning theory of careers counselling (LTCC) (Mitchell and Krumboltz, 1996). The more recent version attempts to integrate practical ideas, research and procedures to provide a theory that goes beyond an explanation of why people pursue various jobs: ‘While the two theories were published at different times, they can be regarded as one theory with two parts. Part one (SLTCDM) explains the origins of career choice and part two (LTCC) explains what career counsellors can do about many career related problems’ (Mitchell and Krumboltz, 1996, 234). Most recently, Krumboltz has been developing and integrating ideas about the role of chance (happenstance) in career decision making. Most recently, Krumboltz has been developing his ideas around supporting (even encouraging) career indecision (Mitchell et al., 1999; Krumboltz & Levin, 2004). He promotes the idea that not only is indecision sensible and desirable, but that clients can create and benefit from unplanned events.</p> | <p>Krumboltz, J.D. (1979). A social learning theory of career decision making. Mitchell, L.K., Krumboltz, J.D. (1984, 1990, 1996). A social learning approach to career decision making. In Brown, L. Brooks & Associates, <i>Career Choice and development</i>. Krumboltz, J.D. (1994). Improving career development theory from a social learning theory perspective. In Savickas and Lent. <i>Convergence in career development theory</i>. Mitchell, K.E., Levin, A.S. & Krumboltz, J.D. (1999) Planned happenstance: constructing unexpected career opportunities in <i>Journal of Counseling and Development</i>. Krumboltz, J.D. & Levin, A.S. (2004) Luck is no accident: making the most of happenstance in your life and career. Atascadero, CA: Impact Publish.</p> |

| DATE | THEORIST/ RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|------------------------------|-------------------------|--|---|--|--|
| 1981 1996 2002 2005 | GOTTFREDSON, L.S. | THEORY OF CIRCUMSCR PTION AND COMPROMIS E | <p>“Gottfredson (1981, 1996, 2002, 2005) assumed that career choice is a process requiring a high level of cognitive proficiency. A child’s ability to synthesize and organize complex occupational information is a function of chronological age progression as well as general intelligence. Cognitive growth and development are instrumental to the development of a cognitive map of occupation and conceptions of self that are used to evaluate the appropriateness of various occupational alternatives. In recent revisions of her theory, Gottfredson’s (2002, 2005) elaborated on the dynamic interplay between genetic makeup and the environment. Genetic characteristics play a crucial role in shaping the basic characteristics of a person, such as interests, skills, and values, yet their expression is moderated by the environment that one is exposed to.</p> <p>Even though genetic makeup and environment play a crucial role in shaping the person, Gottfredson maintained that the person is still an active agent who could influence or mould their own environment. Hence, career development is viewed as a self-creation process in which individuals looked for avenues or niches to express their genetic proclivities within the boundaries of their own cultural environment.” (Leung, 2008, p.123)</p> | <p>Gottfredson’s theory offers a framework in which the influence of prestige and sex-type could be understood in diverse cultural contexts.</p> <p>Leung, Alvin (2008). The big five theories. In J.A. Athanasou, R. Van Esbroeck (eds) <i>International Handbook of Career Guidance</i>, Springer Science + Business Media B.V. 2008 (p.115-132)</p> | <p>Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations [Monograph]. <i>Journal of Counseling Psychology</i>, 28, 545–579.</p> <p>Gottfredson, L. S. (1996). Gottfredson’s theory of circumscription and compromise. In D. Brown & L. Brooks (Eds.), <i>Career choice and development: Applying contemporary approaches to practice</i> (3rd ed., pp. 179–232). San Francisco, CA: Jossey-Bass.</p> <p>Gottfredson, L. S. (2002). Gottfredson’s theory of circumscription, compromise, and self-creation. In D. Brown & Associate (Eds.), <i>Career choice and development</i> (4th ed., pp. 85–148). San Francisco, CA: Jossey-Bass.</p> <p>Gottfredson, L. S. (2005). Applying Gottfredson’s theory of circumscription and compromise in career guidance and counseling. In S. D. Brown & R. T. Lent (Eds.), <i>Career development and counseling: Putting theory and research to work</i> (pp. 71–100). Hoboken, NJ: Wiley.</p> <p>Griffin, B., & Hesketh, B. (2003). <i>Adaptable behaviours for successful work and career</i></p> |

| DATE | THEORIST/RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|----------------------|----------------------------------|--|---|---|--|
| 1984 2002 2005 | DAWIS R.V. & LOFQUIST L.H. | THEORY OF WORK ADJUSTMENT (TWA) | <p>“The Theory of Work Adjustment (TWA) (Dawis, 2002, 2005; Dawis & Lofquist, 1984) is a class of theory in career development that is anchored on the individual difference tradition of vocational behaviour (Dawis, 1992) called person- environment correspondence theory, viewing career choice and development as continual processes of adjustment and accommodation in which: (a) the person (P) looks for work organisations and environments (E) that would match their “requirements” in terms of needs, and (b) E in turn looks for individuals who have the capabilities to meeting the “requirements” of the organisation. The term satisfaction is used to indicate the degree that P is satisfied with E, and satisfactoriness is used to denote the degree that E is satisfied with P. To P, the most central requirements to meet from E are their needs (or reinforcers), which could be further dissected into categories of psychological and physical needs that are termed values. To E, however, the most central requirements are abilities, which are operationalised as dimensions of skills that P possesses that are considered necessary in a given E. Overall, the degree of P’s satisfaction and E’s satisfactoriness would jointly predict P’s tenure in that work environment.</p> <p>TWA seeks to explain career development and satisfaction in terms of person-environment correspondence, and it offers career guidance professionals a template to locate entry points to assist individuals with career choice and adjustment concerns.”</p> <p>Retrieved from: http://www.realtutoring.com/career/bigFiveTheory.pdf</p> | <p>A major strength of TWA is that a battery of measures has been developed to measure the various variables associated with the theory, including measures on satisfaction, needs and values, skills and abilities, satisfactoriness, and indexes of correspondence (Dawis, 2005).</p> | <p>Dawis, R. V., & Lofquist, L. H. (1984). A psychological theory of work adjustment. Minneapolis, MN: University of Minnesota Press.</p> <p>Dawis, R. V. (1992). The individual difference tradition in counseling psychology. <i>Journal of Counseling Psychology</i>, 39, 7–19.</p> <p>Dawis, R. V. (2002). Person-environment-correspondence theory. In D. Brown & Associate (Eds.), <i>Career choice and development</i> (4th ed., pp. 427–464). San Francisco, CA: Jossey-Bass.</p> <p>Dawis, R. V. (2005). The Minnesota theory of work adjustment. In S. D. Brown & R. T. Lent (Eds.), <i>Career development and counseling: Putting theory and research to work</i> (pp. 3–23). Hoboken, NJ: Wiley.</p> |

| DATE | THEORIST / RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|------------------------------|-----------------------|--|--|--|--|
| 1994 1996 2002 2005 | LENT, BROWN & HACKETT | SOCIAL COGNITIVE CAREER THEORY (SCCT) | <p>Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 2002; Lent, 2005) is anchored in Bandura's self-efficacy theory (1977, 1997), which postulated a mutually influencing relationship between people and the environment. SCCT offers three segmental, yet interlocking process models of career development seeking to explain (a) the development of academic and vocational interest, (b) how individuals make educational and career choices, and (c) educational and career performance and stability. The three segmental models have different emphasis centring around three core variables, which are self-efficacy, outcome expectations, and personal goals. Lent (2005) defined self-efficacy as "a dynamic set of beliefs that are linked to particular performance domains and activities" (p. 104). Self-efficacy expectations influence the initiation of specific behaviour and the maintenance of behaviour in response to barriers and difficulties. Consistent with early formulation by Bandura (1977) and others (e.g., Hackett & Betz, 1981; Betz, Borgen, & Harmon, 1996), SCCT theorised that self-efficacy expectations are shaped by four primary information sources or learning experiences, which are personal performance accomplishments, vicarious learning, verbal persuasion, and physiological and affective states. Lent (2005) suggested that of the four sources of information or learning experience, personal performance accomplishments have the most powerful influence on the status of self-efficacy. Lent, Brown, and Hackett (2002) defined outcome expectations as "personal beliefs about the consequences or outcomes of performing particular behavior" (p. 262). Outcome expectations include beliefs about extrinsic reward associating with performing the target behaviour, self-directed consequences, and outcomes derived from task performance. Overall, it is hypothesised that an individual's outcome expectations are formed by the same information or learning experiences shaping self-efficacy beliefs. Personal goals refer to one's intention to engage in certain activity or to generate a particular outcome (Lent, 2005). SCCT distinguished between choice content goals, referring to the choice of activities to pursue, and performance goals, referring to the level of accomplishment or performance one aims to attain. Through 126 S.A. Leung setting personal goals, individuals could persist in tasks and sustain their behaviour for a long time in the absence of tangible external rewards or reinforcement. Retrieved from: http://www.realtutoring.com/career/bigFiveTheory.pdf</p> | <p>Self-efficacy, outcome expectations, and personal goals served as core variables in the interest, choice, and performance models of SCCT. The interest model specifies that individuals would likely develop interest in activities that (a) they feel efficacious and (b) anticipate that there would be positive outcomes associated with the activities. The dynamic interaction among interest, self-efficacy, and outcome expectations would lead to the formation of goals and intentions that serve to sustain behaviour over time, leading to the formation of a stable pattern of interest in adolescence or early adulthood. The SCCT choice model views the development of career goals and choices as functions of the interaction among self-efficacy, outcome expectations and interest over time. Career choice is an unfolding process in which the person and his/ her environment mutually influence each other. It involves the specification of primary career choice or goal, actions aiming to achieve one's goal, and performance experience providing feedback to the individual on the suitability of goal. In addition, SCCT posited that compromises in personal interests might be required in the career choice process due to contextual immediate to the person (e.g., cultural beliefs, social barriers, lack of support)</p> | <p>Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. <i>Journal of Vocational Behaviour.</i> Lent, R. W., Brown, S. D., & Hackett, G. (1996). Career Development from a social-cognitive perspective. In Brown and Associates, <i>Career choice and development.</i></p> <p>Lent, R. W. (2005). A social cognitive view of career development and counseling. In S. D. Brown & R. T. Lent (Eds.), <i>Career development and counseling: Putting theory and research to work</i> (pp. 101–127). Hoboken, NJ: Wiley. Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. In D. Brown & Associate (Eds.), <i>Career choice and development</i> (4th ed., pp. 255–311). San Fr</p> |

| DATE | THEORIST/ RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|--|--|------------------------------------|--|---|--|
| 1990 1991 1994 1999 2003 2006 | OSIPOW, 1990 HACKETT, LENT & GREEN HAUS, 1991 SAVICKAS & LENT, 1994 PATTON & MCMAHON, 1999, 2006 CHEN, 2003 | CONVERGENCE OF THEORIES | <p>"In 1990 Osipow suggested that the major career development theories are converging as empirical evidence about vocational behavior accumulates and as the theories are continuously revised. His analysis of four major theories includes those of Super, Holland, Lofquist and Dawis, and Krumboltz. Osipow identified common themes among those theories: biological factors, parental influences, personality, outcomes, and life-stage influences.</p> <p>Hackett, Lent and Greenhaus (1991) have also argued the need to work toward unifying career decision theories to bring together conceptually related constructs (e.g., self-efficacy and self-concept), to more fully explain outcomes that are common to a number of career theories (e.g., satisfaction), to account for the relations among seemingly diverse constructs (e.g., interests, needs, abilities), and to identify the major variables crucial to a comprehensive theory of career development." Kazdin, A. (2000). Career: Career Development. <i>Encyclopedia of Psychology</i>. Oxford University Press. Vol. 2. p.26 – 27.</p> <p>"Proponents of moves towards convergence in career theory (Chen, 2003; Patton & McMahon, 1999, 2006; Savickas & Lent, 1994) have emphasized the importance of viewing career behaviours as a whole, and also the relationship between all relevant elements in the career decision-making process to each other and to the whole. It is important that contributions from all theories are considered in exploring an individual's career decision-making processes. Amundson (2005) asserted that recent advances in constructivism, system theory, action theory and paradoxical theory have emerged to support individuals and counselors in constructing personal development in a world of unprecedented and ongoing rapid changes occurring within the workplace and in individual careers."</p> <p>McMahon, M., Watson, M. & Patton, W. (2014). Context-Resonant Systems Perspectives in Career Theory. <i>In Handbook of Career Development, International and Cultural Psychology</i>, Springer, pp.31-32.</p> <p>Retrieved from: http://link.springer.com/chapter/10.1007%2F978-1-4020-6230-8_7#page-1</p> | There remains a disconnect between theory and practice in relation to the level of attention they pay to context and the application of systems today. | <p>Osipow, S. H. (1990). Convergence in theories of career choice and development: Review and prospect. <i>Journal of Vocational Behaviour</i>, 36, 37-42</p> <p>Hackett, G., Lent, R.W., & Greenhaus, J. (1991). <i>Journal of Vocational Behavior</i>, 18, 326-339</p> <p>Savickas, M.L., & Lent, R.W. (Ed.). (1994). <i>Convergence in career development theories</i>. Palo Alto, CA: Consulting Psychological Press</p> <p>Patton, W. & McMahon, M. (1999). Career development and systems theory: A new relationship. Pacific Grove, CA: Brooks/Cole.</p> <p>Chen, C.P. (2003). Integrating perspectives in career development theory and practice. <i>Career development Quarterly</i>, 51, 203-216</p> <p>Patton, W. & McMahon, M. (2006). Career development and systems theory: Connecting theory and practice. Rotterdam: Sense Publishers.</p> <p>Amundson, R. (2005). The changing role of the embryo in evolutionary thought: roots of evo-devo. Cambridge University Press.</p> <p>McMahon, M., Watson, M., & Patton, W. (2014). Context-resonant systems perspectives in career theory. In Handbook of career development (pp. 29-41). Springer, New York, NY.</p> |

| DATE | THEORIST/RESEARCHER | THEORY | DESCRIPTION | REMARKS | REFERENCE |
|----------------------|--|-------------------------|---|---|--|
| 2005 2012 2014 | MCMAHON, WATSON, & PATTON GUICHARD AND LENZ CHOPE | SUMMARY | <p>“Early theories focused on the content of career choice, such as characteristics of the individual and of the workplace evolved and became known as trait and factor theories (e.g., Holland, 1985). Subsequent development in these theories based on the acceptance of greater individual and environment connection led to modified person-environment fit theories (e.g., Walsh & Chartrand, 1994). Theories which placed more emphasis on the stages and process of career development were proposed and became known as developmental theories (e.g., Super, 1957, 1990). Theoretical work first published during 1980s and early 1990s focused on both content and process, including the interaction between these and the role of cognition in the process (e.g., Lent & Hackett, 1994; Lent, Brown, & Hackett, 2002; Peterson, Sampson, & Reardon, 1991 & 2002). More recently, theorists have focused on constructivist influences in career theory and on approaches to convergence of the many career theories, with the field of career development theory continuing to proffer flexible and adaptive theory. In a recent overview, Guichard and Lenz (2005) identified three primary characteristics evident in the international career theory literature: “a) emphasis on contexts and cultural diversities, b) self-construction or development emphasis, and c) a constructivist perspective” (p.17).”</p> <p>Retrieved from: http://link.springer.com/chapter/10.1007%2F978-1-4020-6230-8_7#page-1</p> | <p>“Theory is a picture, an image, a description, a representation of reality. It is not reality itself. It is a way we can think about some part of reality so that we can comprehend it”</p> <p>(Krumboltz)</p> | <p>Guichard, J., & Lenz, J. (2005). Career theory from an international perspective. <i>The Career Development Quarterly</i>, 54(1), 17-28.</p> <p>McMahon, M., Watson, M. & Patton, W. (2014). Context-Resonant Systems Perspectives in Career Theory. <i>In Handbook of Career Development, International and Cultural Psychology</i>, Springer, pp.31-32.</p> |
| - 2020 | | REINTERGRATING THEORIES | <p>“integrated overview of career theories, interpreting them in terms of themes, rather than chronology, discipline or epistemology. This synthesis of career theory benefits students and practitioners in that it does not force a choice between one theory and another and instead tries to bring theories together, highlighting similarities rather than differences. This approach demonstrates that the theories can combine to help to explain more about a client’s career story than any one theory on its own could.” (P.3)</p> | <p>“Many contemporary career theories are influenced by constructivism which holds that reality is constructed by the individual” (p.2).</p> | <p>Yates, J. ORCID: 0000-0001-9235-564X (2020). Career Development: An Integrated Analysis. In: Robertson, P., McCash, P. and Hooley, T. (Eds.), <i>The Oxford Handbook of Career Development</i>. Oxford, UK: Oxford University Press.</p> |

The process of career development theory comes from four disciplines:

- Differential Psychology - interested in work and occupations
- Personality - view individuals as an organizer of their own experiences
- Sociology - focus on occupational mobility
- Developmental Psychology - concerned with the “life course”

Career Development Theories for the past 75 years fall into four categories:

- Trait Factor - Matching personal traits to occupations-Frank Parson’s (1920’s)
- Psychological - Personality types matching work environment- Holland (1980’s) and
- Decision - Situational or Sociological- Bandura (Self Efficacy-1970’s) Developmental - Self Concept over life span-Super (1950

APPENDIX 2

INFORMATION LETTER

Dear parents,

This research aims to measure adolescents' career decision self-efficacy and investigate the influence of parents' support on this. The research is done for the purpose of my studies.

Your and your child's participation will benefit both of you through reflection on your attitudes and behaviour. It may help you think about yourself and acknowledge your strengths and weaknesses. The findings of this research will help me understand how families can have more effective impact on adolescents' career decision making process and help career counsellors in developing an understanding of adolescents' career decision making difficulties and empowering them and their families effectively. If you wish to have a summary of the results please tick the relevant box in the questionnaire.

You will fill out the questionnaire which is divided into 3 parts. The first part deals with the career decision self-efficacy, the second part is related to your parents' support for this and in the third part you are asked to give some demographical information for you and your family. The time commitment to answer the questionnaire will be 15-20 minutes.

I strongly ensure you that the information I am asking for is not to judge you but to help me learn more about the role the families play in adolescents' career decision making. To safeguard your privacy and anonymity I ensure you that only the researcher will see your responses and your name will not be written on any of the questionnaires and that the questionnaires will bear no identifying mark or coding symbol to reveal your identity. All of your responses will be kept confidential. The findings will be a summary of your data. Please feel free to ask questions at any time.

Your participation in this research is voluntary. You have the right to withdraw your participation at any time during the procedure without any penalty. Your child will participate in the research at school and you as parents will receive by the school the link for the e-questionnaire. If you do not agree for your child and/or you to participate in this research please contact me.

If you have any questions, feel free to contact me.

Tonia Spyropoulou
Cyprus Pedagogical Institute
2252 Nicosia
Mobile phone: [REDACTED]
[REDACTED]

APPENDIX 3

QUESTIONNAIRE ON ADOLESCENTS' CAREER DECISION SELF-EFFICACY AND PARENTS' SUPPORT

This survey is conducted for the purpose of my PhD studies and intends to measure adolescents' career decision self-efficacy and investigate the influence of parents' support on this.

The questionnaire explores firstly your opinion as parents to the degree your child has the ability to make decisions (Part 1a) and the importance of your support on this (Part 1b). You are also asked to give some demographical information for you and your child. It is very important for the results of this investigation to be honest with your answers. The time commitment to answer the questionnaire will be 10-20 minutes.

Please answer the questions carefully reading the instructions below for:

- **Part 1 (a)** give your answers by showing how much you believe your child has the ability to perform in situations described by the statements given,
- **Part 1(b)** state the degree to which you feel your child should have support in different ways described and
- **Part 2** give some demographic information for yourself and your child

The privacy and anonymity of the participants are ensured and all of your responses and the information you are going to give will be kept confidential. Your participation in this research is voluntary. You have the right to withdraw your participation at any time during the procedure without any penalty.

Thank you very much for the time you spend to answer the questionnaire below.

PART 1 (A): THE CAREER DECISION SELF-EFFICACY SCALE—SHORT FORM (Betz, Klein, & Taylor, 1996)

For each statement listed below, indicate your degree of confidence in your ability to accomplish each task or activity. Use the following to indicate your confidence:

No Confidence at all (1), Very Little Confidence (2), Moderate Confidence (3), Much Confidence (4), Complete Confidence (5).

| a/ a | Indicate your degree of confidence in your ability to accomplish each of the following task or activity: | No Confiden ce at all | Very Little Confiden ce | Moderat e Confiden ce | Much Confiden ce | Comple t e Confiden ce |
|-----------------|---|--------------------------------------|--|--|---------------------------------|---|
| 1 | Use the Internet to find information about occupations that interest you | 1 | 2 | 3 | 4 | 5 |
| 2 | Select one major from a list of potential majors you are considering. | 1 | 2 | 3 | 4 | 5 |
| 3 | Make a plan of your goals for the next five years. | 1 | 2 | 3 | 4 | 5 |
| 4 | Determine the steps to take if you are having academic trouble with your chosen major. | 1 | 2 | 3 | 4 | 5 |
| 5 | Accurately assess your abilities | 1 | 2 | 3 | 4 | 5 |
| 6 | Select one occupation from a list of potential occupations you are choosing | 1 | 2 | 3 | 4 | 5 |
| 7 | Determine the steps you need to take to successfully complete your chosen subjects | 1 | 2 | 3 | 4 | 5 |
| 8 | Persistently work at your major career goal even when you get frustrated. | 1 | 2 | 3 | 4 | 5 |
| 9 | Determine what your ideal job would be. | 1 | 2 | 3 | 4 | 5 |
| 10 | Find out the employment trends for an occupation over the next ten years. | 1 | 2 | 3 | 4 | 5 |
| 11 | Choose a career that will fit your preferred lifestyle. | 1 | 2 | 3 | 4 | 5 |
| 12 | Prepare a good resume. | 1 | 2 | 3 | 4 | 5 |
| 13 | Change majors if you did not like your first choice. | 1 | 2 | 3 | 4 | 5 |
| 14 | Decide what you value most in an occupation. | 1 | 2 | 3 | 4 | 5 |
| 15 | Find out about the average yearly earnings of people in an occupation. | 1 | 2 | 3 | 4 | 5 |
| 16 | Make a career decision and then not worry about whether it was right or wrong | 1 | 2 | 3 | 4 | 5 |
| 17 | Change occupations if you are not satisfied with the one you enter. | 1 | 2 | 3 | 4 | 5 |

| a/ a | Indicate your degree of confidence in your ability to accomplish each of the following task or activity: | No Confidence at all | Very Little Confidence | Moderate Confidence | Much Confidence | Complete Confidence |
|---------|--|----------------------------|------------------------------|------------------------|--------------------|------------------------|
| 18 | Figure out what you are and are not ready to sacrifice to achieve your career goals. | 1 | 2 | 3 | 4 | 5 |
| 19 | Talk with a person already employed in the field you are interested in. | 1 | 2 | 3 | 4 | 5 |
| 20 | Choose a major or career that will fit your interests. | 1 | 2 | 3 | 4 | 5 |
| 21 | Identify employers, firms, and institutions relevant to your career possibilities. | 1 | 2 | 3 | 4 | 5 |
| 22 | Define the type of lifestyle that you would like to live. | 1 | 2 | 3 | 4 | 5 |
| 23 | Find information about graduate and professional schools. | 1 | 2 | 3 | 4 | 5 |
| 24 | Successfully manage the job interview process. | 1 | 2 | 3 | 4 | 5 |
| 25 | Identify some reasonable major or career alternatives if you are unable to get your first choice. | 1 | 2 | 3 | 4 | 5 |

PART 1 (B): PARENTS' SUPPORT QUESTIONNAIRE

For each statement listed below, state the degree to which you feel your parents support you. Use the following to indicate your feeling: Not at all (1), Very little (2), Little (3), Much (4) and Very Much (5)

| a/ a | Indicate the degree to which you feel your parents provide support to you in the following: My parents..... | Not at all | Very little | Little | Much | Very much |
|---------|---|------------|-------------|--------|------|-----------|
| 1 | support me emotionally no matter what my career decision is | 1 | 2 | 3 | 4 | 5 |
| 2 | spend time with me to discuss one to one | 1 | 2 | 3 | 4 | 5 |
| 3 | treat my mistakes as learning experiences | 1 | 2 | 3 | 4 | 5 |
| 4 | emphasize my strengths | 1 | 2 | 3 | 4 | 5 |
| 5 | support me to acquire social skills | 1 | 2 | 3 | 4 | 5 |
| 6 | tell me they are proud of me | 1 | 2 | 3 | 4 | 5 |
| 7 | encourage me to make my own decision | 1 | 2 | 3 | 4 | 5 |
| 8 | really try to understand my feelings, my way of thinking and opinions on various subjects | 1 | 2 | 3 | 4 | 5 |
| 9 | help me feel better when I am worried/stressed or concerned about something | 1 | 2 | 3 | 4 | 5 |
| 10 | have high expectations for my career | 1 | 2 | 3 | 4 | 5 |
| 11 | give me written material about careers and universities | 1 | 2 | 3 | 4 | 5 |
| 12 | suggest to me alternative career paths | 1 | 2 | 3 | 4 | 5 |
| 13 | offer to me new career experiences | 1 | 2 | 3 | 4 | 5 |
| 14 | have specific career traditions | 1 | 2 | 3 | 4 | 5 |
| 15 | push me to a career direction reflective of their interests than mine | 1 | 2 | 3 | 4 | 5 |
| 16 | encourage me to ask about different jobs | 1 | 2 | 3 | 4 | 5 |
| 17 | participate with me in structured exhibitions/workshops/lectures regarding career | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----|--|-------------------|--------------------|---------------|-------------|------------------|
| 18 | encourage me to take career tests | 1 | 2 | 3 | 4 | 5 |
| 19 | discuss with me the results of career tests | 1 | 2 | 3 | 4 | 5 |
| a/a | Indicate the degree to which you feel your parents provide support to you in the following: My parents..... | Not at all | Very little | Little | Much | Very much |
| 20 | talk to my school counsellor | 1 | 2 | 3 | 4 | 5 |
| 21 | provide me with the opportunity to select goals from a variety of activities | 1 | 2 | 3 | 4 | 5 |
| 22 | help me evaluate (positives and negatives) goals | 1 | 2 | 3 | 4 | 5 |
| 23 | support me when I have selected my goal even if they do not agree | 1 | 2 | 3 | 4 | 5 |
| 24 | insist on them selecting a goal for me | 1 | 2 | 3 | 4 | 5 |
| 25 | lead me to select a goal that fits my interests | 1 | 2 | 3 | 4 | 5 |
| 26 | encourage me to try new activities | 1 | 2 | 3 | 4 | 5 |
| 27 | encourage me to be involved in extracurricular activities | 1 | 2 | 3 | 4 | 5 |
| 28 | discuss with me about my expectations from selecting specific goals | 1 | 2 | 3 | 4 | 5 |
| 29 | talk to me about the steps involved in goal selection | 1 | 2 | 3 | 4 | 5 |
| 30 | encourage me to consider many different educational and career options | 1 | 2 | 3 | 4 | 5 |
| 31 | discuss with me about alternative choices | 1 | 2 | 3 | 4 | 5 |
| 32 | encourage me to make plans for the future | 1 | 2 | 3 | 4 | 5 |
| 33 | provide chances to be informed about My final plans | 1 | 2 | 3 | 4 | 5 |
| 34 | show understanding in changing my decisions | 1 | 2 | 3 | 4 | 5 |
| 35 | help me acknowledge the positives and negatives of my plans | 1 | 2 | 3 | 4 | 5 |
| 36 | encourage me to make my own decisions | 1 | 2 | 3 | 4 | 5 |
| 37 | ask what careers I am considering for my future | 1 | 2 | 3 | 4 | 5 |
| 38 | discuss with me the possibility to change my future plans | 1 | 2 | 3 | 4 | 5 |
| 39 | promise to support economically for my future plans | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----|--|-------------------|--------------------|---------------|-------------|------------------|
| 40 | respect my future plans | 1 | 2 | 3 | 4 | 5 |
| 41 | respect my way of solving my problems | 1 | 2 | 3 | 4 | 5 |
| 42 | negotiate various solutions to a problem that I face | 1 | 2 | 3 | 4 | 5 |
| 43 | undertake the responsibility of solving my problems | 1 | 2 | 3 | 4 | 5 |
| a/a | Indicate the degree to which you feel your parents provide support to you in the following: My parents..... | Not at all | Very little | Little | Much | Very much |
| 44 | find somebody to help me solve my problems | 1 | 2 | 3 | 4 | 5 |
| 45 | avoid dealing with problem-solving | 1 | 2 | 3 | 4 | 5 |
| 46 | talk to me about the steps in solving a problem | 1 | 2 | 3 | 4 | 5 |
| 47 | give me the chance to contribute when the family has to solve a problem | 1 | 2 | 3 | 4 | 5 |
| 48 | let me solve problems by my own | 1 | 2 | 3 | 4 | 5 |
| 49 | trust me | 1 | 2 | 3 | 4 | 5 |
| 50 | support me emotionally even when I am frustrated with problem-solving | 1 | 2 | 3 | 4 | 5 |

PART 2: DEMOGRAPHICAL INFORMATION

Please fill in the following information about yourself and your family:

A. PERSONAL DATA:

A.1. Boy Girl

A.2. District area you live in:

- Nicosia
- Limassol
- Larnaka
- Paphos
- Famagusta

A.3. The primary subjects I have chosen for the third grade at school and the grades for the first semester for each subject are:

| a/a | CHOSEN SUBJECTS | GRADES .../20 |
|-----|-----------------|------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

A.4. After my graduation from Lyceum/Technical School (for boys after military service) I plan to:

- Study in a public University in my country
- Study in a public University in Greece
- Study in a private University in my country
- Study in a private University in another country
- Work first and then study
- Work
- Other (specify):

A.5. If your plan to study, write your first four (4) educational choices:

1.
2.
3.
4.

A.6. If you plan to work write the fields of employment:

1.
2.
3.
4.

A.7. My career choices are influenced by the economic crisis on the island:

Yes No

A.8. If there was no economic crisis I would have chosen a different field of studies.

Yes No

B. ABOUT MY FAMILY:

Mother:

B.1. Highest level of education:

- Primary school
- Secondary school
- College
- University
- Master Degree
- PhD

B.2. Profession:

B.3. Country of origin:

Father:

B.4. Highest level of education:

- Primary school
- Secondary school
- College
- University
- Master Degree
- PhD

B.5. Profession:

B.6. Country of origin:

Family:

B.7. How many brothers and sisters do you have and how old are they?

- 1 brother or sisterold years
- 2 brothers or/and sisters and old years
- 3 brothers or/and sisters, andold years
- More (write the number and their ages)

B.8. I am most closely related to my father/mother (underline what is right for you)

B.9. Can your parents support you financially to study?

Yes No

B.10. Whom do you prefer to talk to about your career plans?

- Mother and/or father
- School Counselor
- Teacher
- Grandparents
- Friends

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS SURVEY

APPENDIX 4

QUESTIONNAIRE ON ADOLESCENTS' CAREER DECISION SELF-EFFICACY AND PARENTS' SUPPORT

This survey is conducted for the purpose of my PhD studies and intends to measure adolescents' career decision self-efficacy and investigate the influence of parents' support on this.

The questionnaire explores firstly your opinion as parents to the degree your child has the ability to make decisions (Part 1a) and the degree to which you feel you give support to your child (Part 1b). You are also asked to give some demographical information for you and your child. It is very important for the results of this investigation to be honest with your answers. The time commitment to answer the questionnaire will be 10-20 minutes.

Please answer the questions carefully reading the instructions below for:

- **Part 1 (a)** give your answers by showing how much you believe your child has the ability to perform in situations described by the statements given,
- **Part 1(b)** state the degree to which you feel you give support to your child in different ways described and
- **Part 2** give some demographic information for yourself and your child

The privacy and anonymity of the participants are ensured and all of your responses and the information you are going to give will be kept confidential. Your participation in this research is voluntary. You have the right to withdraw your participation at any time during the procedure without any penalty.

Thank you very much for the time you spend to answer the questionnaire below.

Part 1 (A): ADOLESCENTS' ABILITY SCALE FOR DECISION MAKING (BASED ON THE SHORT FORM OF CDESES, Betz, Klein, & Taylor, 1996)

For each statement listed below, indicate your degree you believe your child has the ability to accomplish each task or activity. Use the following to indicate your belief:

No at all (1), Very Little (2), Moderate (3), Much (4), Complete (5).

| a/ a | I believe my child has the ability to accomplish each of the following task or activity: | No at all | Very Little | Moderate | Much | Completely |
|-----------------|---|------------------|--------------------|-----------------|-------------|-------------------|
| 1 | Use the Internet to find information about occupations that interest him/her | 1 | 2 | 3 | 4 | 5 |
| 2 | Select one major from a list of potential majors he/she is considering. | 1 | 2 | 3 | 4 | 5 |
| 3 | Make a plan of their goals for the next five years. | 1 | 2 | 3 | 4 | 5 |
| 4 | Determine the steps to take if he/she is having academic trouble with a chosen major. | 1 | 2 | 3 | 4 | 5 |
| 5 | Accurately assess their abilities | 1 | 2 | 3 | 4 | 5 |
| 6 | Select one occupation from a list of potential occupations he/she is choosing | 1 | 2 | 3 | 4 | 5 |
| 7 | Determine the steps he/she needs to take to successfully complete their chosen goal | 1 | 2 | 3 | 4 | 5 |
| 8 | Persistently work at their major career goal even when he/she gets frustrated. | 1 | 2 | 3 | 4 | 5 |
| 9 | Determine what their ideal job would be. | 1 | 2 | 3 | 4 | 5 |
| 10 | Find out the employment trends for an occupation over the next ten years. | 1 | 2 | 3 | 4 | 5 |
| 11 | Choose a career that will fit their preferred lifestyle. | 1 | 2 | 3 | 4 | 5 |
| 12 | Prepare a good resume. | 1 | 2 | 3 | 4 | 5 |
| 13 | Change majors if he/she did not like their first choice. | 1 | 2 | 3 | 4 | 5 |
| 14 | Decide what he/she values most in an occupation. | 1 | 2 | 3 | 4 | 5 |
| 15 | Find out about the average yearly earnings of people in an occupation. | 1 | 2 | 3 | 4 | 5 |
| 16 | Make a career decision and then not worry about whether it was right or wrong | 1 | 2 | 3 | 4 | 5 |
| 17 | Change occupations if he/she is not satisfied with the one he/she enters. | 1 | 2 | 3 | 4 | 5 |
| 18 | Figure out what he/she is and is not ready to sacrifice to achieve their career goals. | 1 | 2 | 3 | 4 | 5 |

| a/ a | I believe my child has the ability to accomplish each of the following task or activity: | No at all | Very Little | Moderate | Much | Completely |
|-----------------|--|------------------|--------------------|-----------------|-------------|-------------------|
| 19 | Talk with a person already employed in the field he/she is interested in. | 1 | 2 | 3 | 4 | 5 |
| 20 | Choose a major or career that will fit their interests. | 1 | 2 | 3 | 4 | 5 |
| 21 | Identify employers, firms, and institutions relevant to their career possibilities. | 1 | 2 | 3 | 4 | 5 |
| 22 | Define the type of lifestyle that he/she would like to live. | 1 | 2 | 3 | 4 | 5 |
| 23 | Find information about graduate and professional schools. | 1 | 2 | 3 | 4 | 5 |
| 24 | Successfully manage the job interview process. | 1 | 2 | 3 | 4 | 5 |
| 25 | Identify some reasonable major or career alternatives if he/she is unable to get their first choice. | 1 | 2 | 3 | 4 | 5 |

PART 1 (B): PARENTS' SUPPORT QUESTIONNAIRE

For each statement listed below, state the degree to which you feel you give support to your child. Use the following to indicate your feeling: Not at all (1), Very little (2), Little (3), Much (4) and Very Much (5)

| a/ a | I believe I | Not at all | Very little | Little | Much | Very much |
|---------|---|---------------|----------------|--------|------|--------------|
| 1 | support him/her emotionally no matter what their career decision is | 1 | 2 | 3 | 4 | 5 |
| 2 | spend time with him/her to discuss one to one | 1 | 2 | 3 | 4 | 5 |
| 3 | treat their mistakes as learning experiences | 1 | 2 | 3 | 4 | 5 |
| 4 | emphasize their strengths | 1 | 2 | 3 | 4 | 5 |
| 5 | support him/her to acquire social skills | 1 | 2 | 3 | 4 | 5 |
| 6 | tell him/her I am proud of him/her | 1 | 2 | 3 | 4 | 5 |
| 7 | encourage him/her to make their own decision | 1 | 2 | 3 | 4 | 5 |
| 8 | really try to understand their feelings, their way of thinking and opinions on various subjects | 1 | 2 | 3 | 4 | 5 |
| 9 | help him/her feel better when he/she is worried/stressed or concerned about something | 1 | 2 | 3 | 4 | 5 |
| 10 | have high expectations for their career | 1 | 2 | 3 | 4 | 5 |
| 11 | give him/her written material about careers and universities | 1 | 2 | 3 | 4 | 5 |
| 12 | suggest to him/her alternative career paths | 1 | 2 | 3 | 4 | 5 |
| 13 | offer him/her new career experiences | 1 | 2 | 3 | 4 | 5 |
| 14 | have specific career traditions | 1 | 2 | 3 | 4 | 5 |
| 15 | Push him/her to a career direction reflective of my interests than theirs | 1 | 2 | 3 | 4 | 5 |
| 16 | encourage him/her to ask about different jobs | 1 | 2 | 3 | 4 | 5 |
| 17 | participate with him/her in structured exhibitions/workshops/lectures regarding career | 1 | 2 | 3 | 4 | 5 |

| a/ a | I believe I | Not at all | Very little | Little | Much | Very much |
|-----------------|---|-----------------------|------------------------|---------------|-------------|----------------------|
| 18 | encourage him/her to take career tests | 1 | 2 | 3 | 4 | 5 |
| 19 | discuss with him/her the results of career tests | 1 | 2 | 3 | 4 | 5 |
| 20 | talk to their school counsellor | 1 | 2 | 3 | 4 | 5 |
| 21 | provide him/her with the opportunity to select goals from a variety of activities | 1 | 2 | 3 | 4 | 5 |
| 22 | help him/her evaluate (positives and negatives) goals | 1 | 2 | 3 | 4 | 5 |
| 23 | support him/her when he/she has selected their goal even if I do not agree | 1 | 2 | 3 | 4 | 5 |
| 24 | insist on me selecting a goal for him/her | 1 | 2 | 3 | 4 | 5 |
| 25 | lead him/her to select a goal that fits their interests | 1 | 2 | 3 | 4 | 5 |
| 26 | encourage him/her to try new activities | 1 | 2 | 3 | 4 | 5 |
| 27 | encourage him/her to be involved in extracurricular activities | 1 | 2 | 3 | 4 | 5 |
| 28 | discuss with him/her about my expectations from selecting specific goals | 1 | 2 | 3 | 4 | 5 |
| 29 | talk to him/her about the steps involved in goal selection | 1 | 2 | 3 | 4 | 5 |
| 30 | encourage him/her to consider many different educational and career options | 1 | 2 | 3 | 4 | 5 |
| 31 | discuss with him/her about alternative choices | 1 | 2 | 3 | 4 | 5 |
| 32 | encourage him/her to make plans for the future | 1 | 2 | 3 | 4 | 5 |
| 33 | provide chances to be informed about their final plans | 1 | 2 | 3 | 4 | 5 |
| 34 | show understanding in changing their decisions | 1 | 2 | 3 | 4 | 5 |
| 35 | help him/her acknowledge the positives and negatives of their plans | 1 | 2 | 3 | 4 | 5 |
| 36 | encourage him/her to make their own decisions | 1 | 2 | 3 | 4 | 5 |
| 37 | ask what careers he/she is considering for their future | 1 | 2 | 3 | 4 | 5 |
| 38 | discuss with him/her the possibility to change their future plans | 1 | 2 | 3 | 4 | 5 |
| 39 | promise to support economically for their future plans | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----------------|---|-------------------|--------------------|---------------|-------------|------------------|
| 40 | Respect their future plans | 1 | 2 | 3 | 4 | 5 |
| 41 | respect their way of solving their problems | 1 | 2 | 3 | 4 | 5 |
| a/ a | I believe I..... | Not at all | Very little | Little | Much | Very much |
| 42 | negotiate various solutions to a problem that he/she faces | 1 | 2 | 3 | 4 | 5 |
| 43 | undertake the responsibility of solving their problems | 1 | 2 | 3 | 4 | 5 |
| 44 | find somebody to help him/her solve their problems | 1 | 2 | 3 | 4 | 5 |
| 45 | avoid dealing with problem-solving | 1 | 2 | 3 | 4 | 5 |
| 46 | talk to him/her about the steps in solving a problem | 1 | 2 | 3 | 4 | 5 |
| 47 | give him/her the chance to contribute when the family has to solve a problem | 1 | 2 | 3 | 4 | 5 |
| 48 | let him/her solve problems by their own | 1 | 2 | 3 | 4 | 5 |
| 49 | trust him/her | 1 | 2 | 3 | 4 | 5 |
| 50 | support him/her emotionally even when he/she is frustrated with problem-solving | 1 | 2 | 3 | 4 | 5 |

PART 2: DEMOGRAPHICAL INFORMATION

Please fill in the following information about yourself and your child:

A. PERSONAL DATA:

A.1. Father Mother

A.2. District area you live in:

- Nicosia
- Limassol
- Larnaka
- Paphos
- Famagusta

A.3. Highest level of education:

- Primary school
- Secondary school
- College
- University
- Master Degree
- PhD

A.4. Profession:

A.5. Country of origin:

A.6. I can financially support my child to study?

Yes No

B. ABOUT MY CHILD:

B.1. Boy Girl

B.2. After their graduation from Lyceum/Technical School (for boys after military service) he/she plans to:

- Study in a public University in my country
- Study in a public University in Greece
- Study in a private University in my country
- Study in a private University in another country
- Work first and then study
- Work
- Other (specify):

B.3. Their career choices are influenced by the economic crisis on the island:

Yes No

B.4. If there was no economic crisis he/she would have chosen a different field of studies.

Yes No

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS SURVEY